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**RADIATION SURVEY AND SOIL MANAGEMENT
REPORT**

**for
OGM Investors, LLC
c/o Golub & Company
Lindsay Light II Site/OU3/North McClurg Court
345 East Ohio
Chicago, Illinois**

Presented To:

**United States Environmental Protection Agency &
City of Chicago - Department of the Environment
Chicago, Illinois**

Submitted By:

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1.0 INTRODUCTION

GaiaTech Incorporated (GaiaTech) was retained to conduct a soil radiation survey and perform remediation activities at the Golub/OGM Investors, LLC development site located at 345 East Ohio Street (the Site) in Chicago, Illinois (Figure 1). The scope of work was conducted to determine if any residual radioactive impacted soils existed in a wedge of soil around the perimeter of the Phase I section of the site as well as in adjacent City of Chicago right-of-way (ROW) containing sidewalk areas and Ohio Street and Grand Avenue where utilities were proposed. The scope of work was conducted, in accordance with the Soil Management Plan previously presented to and approved by the United States Environmental Protection Agency (US EPA), which was developed by GaiaTech to ensure safe working conditions during site construction activities.

The Soil Management Work Plan was prepared to document protocol, techniques and methodologies to be used to field-screen and manage soils surrounding the perimeter of the Phase I portion of the subject property prior to site construction activities. The goal of the screening activities was to document all suspect areas prior to site development to ensure it will be safe for trade people to work in the areas without environmental oversight during construction activities in the areas.

1.1 Site Background

The Site is currently vacant and consists of approximately 2.16 acre acres, and is currently owned by OGM Investors, LLC. During the 2000 due diligence review, GaiaTech detected elevated levels of gamma radiation on the subject site. Based on the initial findings, on May 31, 2000, TRS (the prior owner) informed the USEPA of the elevated levels of radiation at the property. USEPA designated the subject property as the Lindsay Light II Site/(OU3/North McClurg Court). On July 13, 2000, USEPA notified TRS and Kerr McGee Chemical L.L.C. (entity responsible for disposal of radioactive material at the property), that the radioactive material at the property was off-site contamination related to the Lindsay Light Unilateral Administrative Order (UAO) and subject to the UAO as amended.

On May 15, 2002, the USEPA approved TRS's Removal Work Plan for the radioactive soils at the property. From June 6, 2002 through October 2, 2002, TRS implemented the approved work plan to remove both thorium and pesticide-contaminated soils. Approximately 6,233 tons of radioactive soils were excavated, shipped and disposed of at the Envirocare Facility in Clive, Utah. Post cleanup confirmatory samples met the soil clean-up criteria of 7.1 picoCuries per gram (pCi/g) total radium (Ra-226 + Ra-228), which was confirmed by the USEPA. In Addition, approximately 5,689 tons of pesticide-impacted soils were removed, transported and disposed of at the CID Landfill in Chicago, Illinois. The pesticide contamination was cleaned up to meet the Illinois Tier I soil remediation objectives for a residential property. On December 31, 2002, TRS through

their contractor, STS Consultants, LTD., prepared a Completion Report – Time-Critical Removal Action for the property and submitted it to the USEPA.

On March 21, 2003, USEPA issued a letter of Completion of Work for Lindsay Light II Site/(OU3/North McClurg Court), 341 East Ohio Street (currently re-named 345 East Ohio Street), Chicago, Illinois. In their letter, the USEPA concurred that TRS had removed all radioactive-contaminated material within the footprint of the subject property. However, three radioactive-contaminated areas were identified below the immediately adjacent Grand Avenue and Ohio Street sidewalks located within the City of Chicago ROW. Proper measures and radiation surveillance as required by the City of Chicago permit “moratorium” were required if these areas were to be disturbed.

Since the entire property has completed an approved remediation for radioactive and pesticide-contaminated soils and all identified radioactive and pesticide-impacted soils were removed from the Site, no land use or construction worker environmental restrictions were to be applied to the property during site development.

Although the Site had completed an approved remediation, three areas immediately adjacent to the Site were identified as containing potentially radiologically impacted soils (Figure 2). The areas are located within the City of Chicago owned ROW along the Grand Avenue and Ohio Street sidewalks. Additionally, to avoid undermining the adjacent property to the west and the ROW to the north, east and south of the site, a wedge of soil (with a slope of 1 vertical to 1.5 horizontal) was left undisturbed during the site remediation performed by TRS around the perimeter of the site (radiological area of concern - RAC). The inner limit of the wedge has been identified on Figure 2. Previous subsurface sampling within these soils indicated that they do not contain radiological impacted soils. However, to ensure that the soils are safe for construction at the site and within adjacent ROWs and street areas, all soils within the wedge and the city ROW were to be screened in 18-inch lifts at all areas not previously directly screened.

1.2 Geologic Information

During the current (2004-2005) and former (2002) investigations and remedial activities at the site, surficial soils generally consisted of 6 to 9 feet of urban fill materials. The fill material was composed of sand, organic soils, clay, wood, ash, cinders, slag, glass, concrete and bricks. Underlying the fill was a brown medium sand with occasional shell pieces and/or gravel to a depth of approximately 30 feet below existing grade. The sand unit is underlain by a gray silty clay unit to a depth of 120 feet bgs according to geotechnical borings review by GaiaTech. The clay unit can contain occasional gravel, cobbles and boulders of various sizes. Dolomite bedrock underlies the silty clay unit at a depth of between 118 and 120 feet bgs per geotechnical boring logs. Groundwater is encountered at a depth of around 12 feet below existing grade.

2.0 WORK PLAN AND HEALTH AND SAFETY PLAN

2.1 Work Plan

The Revised Soil Management Workplan (Appendix A) was prepared to document protocol, techniques and methodologies to be used to field-screen and manage soils surrounding the perimeter of the Phase I (western 1/2) area of the property prior to the site development activities. A Soil Management Workplan was initially submitted to the US Environmental Protection Agency (USEPA) for review on November 10, 2004. This Revised Soil Management Workplan incorporated all comments made by the USEPA in correspondence dated November 30, 2004 and included in Appendix A.

The workplan was not considered a Remedial Action Plan and as such only incorporates confirmatory sampling as it applies to worker safety and soil management considerations. The goal was to implement this Workplan before the site development to ensure that the site would be safe for trade people to work in the areas without environmental oversight during the development activities in the areas.

Since the entire property has completed an approved remediation for radioactive and pesticide-contaminated soils and all identified radioactive and pesticide-impacted soils were removed from the Site, no land use or construction worker environmental restrictions were to be applied to the property during site development.

Although the Site had completed an approved remediation, three areas immediately adjacent to the Site were identified as containing potentially radiologically impacted soils (Figure 2). The areas are located within the City of Chicago owned ROW along the Grand Avenue and Ohio Street sidewalks. Additionally, to avoid undermining the adjacent property to the west and the ROW to the north, east and south of the site, a wedge of soil (with a slope of 1 vertical to 1.5 horizontal) was left undisturbed during the site remediation performed by TRS around the perimeter of the site (radiological area of concern - RAC). The inner limit of the wedge has been identified on Figure 2. Extensive boring and sampling within these soils previously indicated that they do not contain radiological impacted soils. However, because the soils have not been fully screened in 18-inch lifts, the area between the inner boundary and the site perimeter was designated as a RAC needing further screening.

The Workplan discussed all issues related to performing subsurface excavation for sheet piling installation, caisson drilling, utility installation, sidewalk removal, and landscaping installation within the ROW and the RAC. The original plan was to selectively screen the RAC and ROW area where planned construction activities were to occur. However, after areas were found above the cleanup threshold in the RAC area, followed by discussions with the USEPA, it was determined that the entire RAC, ROW and Street areas would need to be fully surveyed (Figure 3 and Appendix B). The procedures outlined in this plan were implemented to check the above areas prior to any subsurface work conducted

anywhere within the ROW and RAC. As required by the USEPA and the City of Chicago, a special permit from Chicago Department of Environment to conduct subsurface work within the ROW is required (Appendix C). Due to the suspected impacts in the ROW, additional measures including radiation surveillance were being incorporated into the workplan for the ROW area. As a result, any radiation-impacted soils exceeding the thresholds in any of the above areas was properly managed by and disposed of off-site by Kerr-McGee.

Each area in the ROW where trade people may be subject to any radiation levels was excavated and thoroughly screened prior to any construction activities. Any levels above the established safe criteria of 7.1 pCi/g was removed and transported offsite for disposal. Prior to excavation of any impacted soils, the area was cordoned off from unauthorized personnel and personnel wearing modified Level D personal protective equipment (PPE) conducted the remedial activities.

2.2 Health and Safety Plan

The attached (Appendix C) Health and Safety Plan (HASP) was utilized and modified as necessary to conform with evolving site activities and remedial activities in order to minimize and prevent exposures to hazardous substances and conditions related to all excavation and remediation activities within the RAC and the ROW. No development plan is contemplated for Phase II area (eastern 1/2) of the property at this time and the area was used for soil staging during the related soil excavation and remediation. Thus, the Site HASP was designed for the areas including the RAC, ROW and soil staging area within the Phase II area during the implementation of the Soil Management Plan. All personnel assigned to this project were required to review thoroughly the contents of the HASP and to strictly adhere to the policies and procedures listed herein. The HASP was used by GaiaTech and our designated contractors and consultants, and approved Site visitors. The USEPA, and other agencies, were not considered subject to this plan and were required to conform to their own Health and Safety Plans.

The HASP meets the requirements of OSHA 29 CFR 1910.120, Hazardous Waste Operations and Emergency Response, and applicable subparts of OSHA 29 CFR 1926, 1910 and 10 CFR. Visitors were be required to review the health and safety plan and read and sign the visitor information sheet.

Analytical results from the non-radioactive urban fill materials excavated from the utility trenches indicated that the soils exceeded the Illinois Environmental Protection Agency (IEPA) Tiered Approach to Cleanup Objectives (TACO) Tier I construction worker ingestion (400 mg/kg) exposure pathway for lead (700 mg/kg - Table 1 and Appendix E). All excavated soils were therefore managed to minimize any dust or exposure to the soils during excavation and loading activities prior to disposal.

3.0 SOIL SCREENING AND REMEDIAL ACTIVITIES

Prior to field activities, GaiaTech completed a subsurface utility clearance through the Digger service provided by the City of Chicago. Also prior to any surveying activities, a 10 cubic yard enclosed dumpster was placed on the site by Kerr-McGee in case any impacted soils were encountered. Any impacted soils would be placed in the special dumpster for disposal. During screening activities at the site two instruments were used for the screening of the soils in the RAC, ROW and street utility trenches and are listed below:

- Ludlum 2221 Rate Meter-Scaler with Ludlum 44-10 2 inch x 2 inch NaI probe (unshielded)
- Ludlum Model 3 Survey Meters with attached Pancake Probe (Pancake)

General gamma radiation surveillance was performed using the Ludlum meters and probes listed above with calibration conducted prior to field work using calibration blocks at Kerr-McGee's Rare Earths Facility in West Chicago, Illinois. The instruments were calibrated to an equivalent number of counts per minute corresponding to the 7.1 pCi/g total radium (USEPA clean-up level).

Screening by a field technician utilizing a Ludlum 2221 meter was completed in 18-inch lifts or less. As needed, the field technician also surveyed the sidewalls of the excavation to ensure remaining soils were below the radiation survey threshold. Unless utilities were present, surveying continued to a depth (between 6 and 9 feet bgs) where native soils were encountered. At locations where utilities were present, surveying was accomplished insitu by utilizing the Ludlum probe with a long cord and/or screening was completed on each excavated bucket. The following presents a narrative of the survey work conducted at the site. Additionally, specific details of the daily screening results can be viewed on attached STS field sheets located in Appendix F. The location and detail of all screening areas in the ROWs and Streets are presented on Figure 4. This figure also indicates the relative size and location of the identified impact areas. Activities are generally listed by survey area and by date of completion. Photo documentation of site activities is included in Appendix G.

3.1 Site Perimeter/RAC

The work in this area was completed between December 13 and December 22, 2004. As stated earlier, the complete remaining wedge/RAC (western 1/2 - Phase I) on the site was surveyed by excavating fill materials and screening the soil in 18 inch benches utilizing the Ludlum 2221 meter and probe. All screened soils in the RAC were returned to the excavation except those found to exceed the established USEPA clean soil limit of 7.1 pCi/g. Impacted soils were removed by hand digging and/or excavation and placed in a "supersack". The supersack was sealed and moved to a lined and covered dumpster for eventual disposal.

On December 15, 2004 work began in this area by excavating and screening areas of the north and south RAC. During screening along the south side of the RAC near the ROW of Grand Street, a small area was found that exceeded the limit on the Ludlum 2221 meter. The USEPA was contacted (Mr. Larry Jensen and Ms. Verneta Simon) and informed that the area appeared to be very small. USEPA representatives were onsite the following day to observe the impact area.

On December 16, 2004, work continued on screening the RAC. USEPA personnel visited the site to inspect the impact area and agreed that it appeared to be a small area. This area (Area 1) was found near the south property line at a depth of between 2.5 and 3.5 feet bgs.

Larry Jensen of the USEPA collected a sample (Table 1) of the impacted soil for analysis wearing appropriate PPE. The sample was collected as documented in Section 4 of this report. Since the area appeared to be small the USEPA (Larry Jensen and Vernita Simon) agreed that we could attempt to remove the impacted soil and no confirmatory sample was necessary. The radiation technician from STS with modified Level D PPE dug out all of the impact soil and placed it in a supersack. The area was checked with a unshielded and shielded Ludlum 2221 meter to ensure cleanup was complete. Approximately 0.15 yd³ of impacted soil was removed from this excavation. After all excavation activities, the STS technician decontaminated his equipment and checked his PPE with pancake meter. All PPE was placed in the supersack with the impacted soil and placed in the dumpster for disposal.

On December 17, 2004, continued surveying the RAC on the site, with no significant readings except for another small area found in the south RAC, east of the previous impact area. Based on preliminary screening around the impact, the area also appeared to be very small. Following this discovery, the area was covered with plastic temporarily, while surveying was conducted in the north RAC, near an area of potential impact. After a small amount of excavation, at a depth of 1.5 feet bgs, high readings on the Ludlum 2221 meter were found and the area appeared to be much larger than the previous two small areas found along the south property boundary. The USEPA was contacted again and Larry Jensen came out and observed the collection of a sample in both of the areas. For the balance of the day surveying continued along the western RAC (proposed sewer trench) located adjacent to the Time-Life building.

In addition, Larry Bertsch and John Yang of GaiaTech along with Eric Hinds of Golub attended a meeting with the USEPA. During the meeting the USEPA communicated that they would like to see all of the RAC and ROW surveyed instead of selected locations to ensure that construction personnel would not be exposed to potential radioactive soils. This request was due to impacted areas that were found in assumed "clean" areas of the RAC. Since a small amount of radioactive soils was found in the RAC, the USEPA requested that the undeveloped portion (eastern 1/2 - Phase II) of the site should be marked or covered to ensure it would not be disturbed prior to additional radiological surveying. GaiaTech agreed to cover any un-surveyed areas in the undeveloped portion of the property with Geotextile material. Additionally GaiaTech and Golub agreed to survey all

fill materials along the RAC and ROW of the proposed developed portion of the property. The letter that was generated by USEPA after this meeting is included under Appendix B.

On December 19, 2004, most of the surveying along the wedge/RAC area along the western property line was finished and a few areas were also done along the north and south RAC.

On December 20, 2004, GaiaTech finished screening along the proposed sheeting area and proceeded to work on excavating previously encountered impact areas along the north and south boundaries. Excavation of the south impact area (Area 2) removed about 0.3 yd³s of soil before the Ludlum survey meter indicated that residual readings were below the limit set for impacted soils. Due to the small size of the impact area, the USEPA did not require a confirmatory soil sample. Excavation of the north area (Area 3) found an area from 1.5 to 5 feet in depth and 5 feet long and 3 feet wide. Approximately 2.5 cubic yards of soil was removed from this area. During the excavation process two workers loaded the soil with the assistance of a mini-excavator. All workers wore modified Level D PPE and a certified health physicist observed and monitored the workers. Air monitoring results are included in Appendix H. All equipment was wiped clean and checked with a pancake detector. All cleaning material, Tyvecks, booties and gloves were placed in a supersack with impacted soil and placed in the dumpster for eventual disposal.

After determination of the extent and the removal of the impacted soil, Larry Jensen of the EPA, arrived at the site and collected a verification sample in the larger northern impact area (Area 3). The sample was transported by the radiation technician to RSSI for analysis.

No work was conducted on December 21, until the results of verification soil sampling was obtained. By the end of December 21, the results were obtained and indicated that residual soils in the impact area were below the USEPA clean level. Following confirmation of the sampling results (Table 2), the area was released by the USEPA with a written sign off form (Appendix H). The following day (December 22), the contractor continued to dig below former impact Area 3 to determine if any other impacted soil existed below the previously identified impact. Soil screening to the top of native soils (9 feet bgs) did not indicate any further impacted soil in this area.

In summary, three impact areas (Areas 1, 2 and 3) were found in the RAC, with two areas (Area 1 & 2) found along the south property line and one (Area 3) detected along the northern property line. In total only a small amount of residual impact was detected, which did not exceed a total of approximately 3 yd³s of impacted soil. All of the RAC within the Phase I/western section of the property had now been completely surveyed with no further surveying necessary.

3.2 Ohio Street Sidewalk/ROW

Work in this area occurred between January 5 and 12, 2005. On January 5, 2005 work commenced on the Ohio Street sidewalk/ROW area. Initial work consisted of the removal of concrete planter boxes, metal guardrails, posts, trees and concrete sidewalk. Screening was completed on the surficial soils and other debris with no apparent impact detected. Concrete and other debris was stockpiled until it could be hauled offsite.

Between January 6th and 7th no screening occurred, due to the lack of a Chicago Department of Transportation (CDOT) permit and utility clearance. On both days the excavation contractor concentrated on removing numerous loads of concrete and other debris and completion of the placement of a geotextile material around the perimeter of the undeveloped (eastern 1/2 - Phase II) half of the site as required by the USEPA.

On January 8th through 12th, 2005, the excavation contractor (TRI), STS, and GaiaTech, screened most of the ROW area of Ohio street to the top of native soils. Native soils were encountered between a depth of 7 and 9 feet bgs. No readings were found that exceeded the limit on the Ludlum 2221 screening instrument. Screening was accomplished by directly screening the excavation by entering the hole when it was shallow and as the excavation deepened by using a long cord on the instrument to check the sidewalks and floor of the excavation. No existing utilities were encountered in the entire ROW and all soils were fully excavated and checked for impact. Only two small areas were bypassed, which included two small areas adjacent to street light poles located adjacent to Ohio Street. At a minimum, soils were still screened to a depth of three feet bgs around the poles. The light pole to the west however, was scheduled to be removed at a later date, at which time the soils in this area could be fully screened.

3.3 Ohio Street Utility Trench's

In this area, survey activities were conducted between January 12 and 28, 2005. Concrete saw cutting of all the street trenches and curbs was completed on January 12, 2005. An offsite USEPA meeting also occurred on this date, where GaiaTech explained to the agency what had been done so far in the RAC and what was proposed for the ROW and street trenches. GaiaTech stated to the agency that all soils in these areas would be screened to the top of native soils, or screening would be completed in the excavation around various utilities. Pavement consisted of 4 to 6 inches of asphalt and 12 to 14 inches of concrete. Due to a weather delay, no work was conducted on January 13th.

Prior to any activities in this area partial street closure was completed utilizing the appropriate signs and barricades. All barricades and traffic control equipment were setup and taken down between 9:30 a.m. and 4 p.m. as stipulated in the Chicago Department of Transportation (CDOT) permit. Starting on January 14th and continuing through January 27, 2005, GaiaTech screened seven utility trenches that included three sewer, two water, one telephone and a gas trench. According to the site general contractor, the two proposed

Com Ed lines were to be screened independently by Com Ed contractors and were not part of this scope of work. Screening and trenching procedures consisted of excavating to the top of and between various utilities and screening with the Ludlum meter every 18-inches. A mini excavator was utilized to enable a more careful excavation around various utilities and to provide a smaller bucket for effective surveying of soils from each excavated soil bucket. Soils were also screened directly in the excavation until a depth of four feet, after which a long probe cord was used in the excavation and each excavated bucket was screened. Soils found to contain no elevated levels of radioactivity were loaded into a rubber tired loader and transported to a temporary soil stockpile. Upon completion of the screening process the excavation was backfilled with ca-6 stone and compacted. Initially trenches were only filled with stone and covered with a steel plate, but due to CDOT concerns with the weather, snow plowing and the stability of the backfill, they demanded that each trench be temporary patched with 10 inches of quickset concrete.

On January 19, 2005, the City of Chicago removed the western most light pole and excavated a location for a new pole. The radiation field technician also surveyed soils during this process. No elevated levels were found around the light pole. At a later date during trenching for a proposed sewer line on January 24th, the old light pole base was excavated screened and prepared for disposal. By January 27th all screening was completed for the trenches in Ohio Street. The last steel plates were removed from over the trenches and quick set concrete was poured in the last trench extensions on the morning of January 31.

On January 31, the CDOT inspector also required that additional patching (cold patch) be installed to make the road smoother for traffic. To comply with the CDOT request, on February 3, 2005 a paving contractor completed cold patching of the utility trenches in Ohio Street.

3.4 Grand Street Utility Trench

The proposed sewer trench was cut into the street on January 27th. Again to comply with the CDOT permit all work was conducted between 9:30 a.m. and 4 p.m. each day. Traffic control measures were setup and taken down during this period prior to any excavation and screening activities.

Screening of the Trench began on February 3, 2005 with the removal of the pavement in the trench. All excavated pavement was removed and stockpiled for later disposal. During the excavation process, several utilities were crossed and two sets of street car rails and granite paving bricks were removed from the excavation. Screening on the trench continued until Monday February 7, 2005. No elevated readings were observed anywhere within the trench or in the removed soils. Soil screening was accomplished by use of in hole screening with the Ludlum meter, long cord probe and with the screening of each removed soil bucket. The finished excavation was filled with ca-6 stone, compacted and

patched with 10 inches of quick set concrete. Iron plates were placed over the patched excavation until the concrete was suitable for traffic.

3.5 Grand Street Sidewalk/ROW

Prior to screening in this area a temporary fence and concrete jersey barriers were installed to prepare for work in the ROW of Grand Street. This was completed to comply with City of Chicago CDOT Permits on maintaining a pedestrian way. On January 31st the initial screening of the Grand Street ROW began near the eastern driveway. At this location we found that only one utility was located in this area at a depth of 3.5 feet bgs. Excavation was conducted to the top of this utility and around it to a depth of 8 feet bgs, the depth of fill materials in this area.

Screening/surveying of the Grand Street ROW continued until February 4th, 2004 where an area (Area 4) in the western part of the ROW was found with soils exceeding the limit on the Ludlum meter (shielded and unshielded). A sample was collected in the area for confirmation of the impact area. No further excavation was conducted here and the area covered by plastic sheeting and caution tape on that date. Per previous USEPA instructions, the USEPA was notified by voice mail as to the location and levels of impact found in the area and our intention to remove impacted soil.

By February 8, 2005, a large proportion of the ROW area had been screened and GaiaTech prepared to organize the removal of the impacted soils found in Area 4. Two workers prepared to enter the impact area by donning the proper PPE and having personnel air monitoring devices placed on their Tyvek suits by a RSSI health physicist. The impact area workers continued to screen and carefully excavate the impacted soils to determine the extent of impact. All impacted soils were removed and placed in a supersack for transport to the onsite dumpster. During the removal process approximately 5 yd³s of impacted soil was removed. Following all impacted soil removal, the workers in the impact area decontaminated all of their equipment and checked the equipment and their PPE for any impact with the pancake detector. All decontamination materials and PPE were placed in supersacks with the impacted soils and moved to the onsite dumpster.

The USEPA was contacted to schedule a time for the USEPA to observe the collection of the verification sample. Eugene Jablonowski responded that he could be onsite to observe the sampling on February 9, 2005. In the mean time, screening continued in other areas of the ROW for the rest of the day. On February 9, 2005, Mr. Jablonowski directed the collection of the verification sample.

Until the verification results were received the contractor was directed to begin compaction and grading of the Grand Street ROW for replacement of the sidewalk. On February 10, the contractor graded, and compacted subbase material for the installation of the sidewalk scheduled for February 11, 2004. Near the end of the day on February 10th, the results received from RSSI and indicated that the sample was below the USEPA cleanup threshold

(7.1 PiC/g). Following concurrence with the USEPA, a release form was issued for this area (Area 4). After the receipt of this form, excavation and screening was completed on the soils directly under the former impact area to the top of the native soils at a depth of 8 feet bgs. No additional impact was observed in this area.

All soil screening was now complete and on February 11, 2005 a new sidewalk was installed in the Grand Street ROW. Four inches of concrete was installed with eight inches being installed in the proposed driveway. The jersey barriers and fencing was removed from the site on February 14, 2005.

4.0 SOIL REMOVAL AND SAMPLING ACTIVITIES

Limited sampling was conducted to ascertain the concentration of suspected screened radiological soils and as confirmation of the completion of remedial activities in selected areas. A soil sample was also collected for disposal of non-radiologically impacted soils previously excavated from the proposed utility trenches in Ohio and Grand Streets.

4.1 Operation Procedure for Gamma Spectroscopic Analysis of Soil Samples

Utilizing USEPA protocols in their entirety, analysis of soil samples were completed by RSSI laboratories in Morton, Grove, Illinois. Analysis of the Uranium (U-238), Thorium (Th-232) and Actinium (U-235) decay series utilizing gamma spectroscopy was completed pursuant to the requirements of "Operating Procedure for Gamma Spectroscopic Analysis of Soil Samples". Some of the USEPA requirements are listed below:

- Gamma spectroscopy equipment was calibrated within the preceding 24 months with a multi-radionuclides gamma standard (with at least 10 radionuclide gamma energies) traceable to the Nation Institute of Standards and Technology. Dated calibration records were supplied to the USEPA personnel.
- Standard Sample Volume was 1000 cubic centimeters.
- Sample count times were sufficient to establish minimum detectable activity concentrations of at least 0.5 pCi/g for all radionuclides except those listed below for the actinium decay series.

Uranium (U-238) Decay Series

- Radium-226
- Lead-214
- Bismuth-214

Thorium (Th-232) Decay Series

- Actinium-228
- Thorium-228
- Lead-212
- Bismuth-212
- Thallium-208

Additionally, sample counts were sufficient to establish minimum detectable activity concentrations of at least 5 pCi/g for potassium-40.

4.2 Radiological Sampling

Prior to sampling the identified impact area, each area was roped off to prevent non-authorized personnel from entering the area during sampling activities. All personnel that were required to complete activities in the designated impact area were required to have modified Level D PPE. This included booties, rubber gloves and Tyvek suits. During their exposure time in the impact area, personnel were monitored using radiation monitoring badges. Personnel air monitoring was only used during remedial activities and was completed and monitored by a RSSI Health Physicist. The results of the air monitoring is included as Appendix H.

After an area was identified as containing levels of radioactivity exceeding the limit set on the Ludlum 1222 unit (shielded and unshielded), the USEPA was notified by telephone that an area with apparent soil impact was encountered. Generally, the USEPA was present during the sampling to ensure that the highest level soils were collected for analysis. Soil sampling was accomplished by screening for the highest levels and then excavating the impacted soils with a stainless steel scoop. The soils were placed in a large stainless steel bowl, mixed and sifted to remove the larger aggregate and fill materials. Prior to placing the sifted soils in a laboratory jar, the impacted soils were checked with the Ludlum meter to ensure the highest levels were collected for analysis. The soils were then placed in laboratory supplied containers, transported under chain of custody procedures and analyzed at RSSI Laboratories in Morton Grove, Illinois. The results of the Sampling are summarized in Table 1 and the full results are included as Appendix E.

When sampling was complete, tools were wiped clean with towels and checked for residual radiological impact with a pancake meter. Personnel were also checked with the pancake meter to ensure they were decontaminated. All PPE and cleaning towels were disposed of with the impacted soil in a supersack and placed in the dumpster for disposal. The sampling results are summarized in Table 1 and 2 and the full results are included as Appendix E.

4.3 Waste Classification Sampling – Non-Radioactive Waste

In accordance with US EPA collection requirements, a composite sample was collected for required landfill parameters (VOCs, SVOCs, TAL, reactive sulfide, reactive cyanide, herbicides, pesticides and PCBs). The composite sample was collected from the soil stock pile, stored on the subject site prior to disposal. After collection the soil sample was placed in clean laboratory supplied containers. The samples were then secured in a sample cooler and preserved with ice. Under strict sample chain-of-custody procedures, the samples were delivered to First Environmental Laboratories in Naperville, Illinois. The results indicated that the urban fill materials were not hazardous and could be removed as special waste. The sampling results are summarized in Table 3 with the complete laboratory information included in Appendix C.

5.0 SOIL DISPOSAL

All radiologically impacted soils were placed in supersacks and transferred to the onsite steel dumpster. After the completion of the soil radiation survey and remediation, the soil was transported and monitored by Hawks Logistics, Inc to a disposal facility in Clive, Utah. The disposal manifest is attached in Appendix J.

Non-radioactive soils that were generated during removal of soils from the proposed utility trenches in Ohio and Grand Streets were temporarily stockpiled on the site. Based on the results of the waste profiling, the waste was not hazardous and was designated as special waste. A total of 370 tons of the impacted soils were transported to Zion Landfill in Zion Illinois by licensed special waste haulers between January 20 to February 2, 2005. The soil waste manifests are included in Appendix K.

Additionally, 21 truck loads of concrete and asphalt were removed and sent to a recycling facility for crushing and reuse. The trucking tickets are attached in Appendix L.

6.0 CONCLUSIONS

From December 13 to February 14, 2005, GaiaTech and STS completed a radiation survey of soils on the site, in the RAC, ROW and in selected areas of Ohio and Grand Streets in Chicago Illinois. The scope of work was designed to address potential impact from construction activities at the site, comply with the City of Chicago and CDOT permitting and to comply with USEPA requests.

- All of the fill materials above the native soils in the wedge/RAC area of the site (Phase I/western 1/2) have been completely surveyed in 18-inch lifts and any encountered radioactive impact soils properly excavated, and removed for proper disposal. No further testing will be necessary in this area for any current or future construction activities.
- All of the soils in the Ohio Street ROW bordering the current development portion of the site have been completely surveyed down to native soils except two small areas adjacent and under utilities, which were inaccessible. However, soils have at a minimum been surveyed to a depth of three feet bgs and should not interfere with any proposed construction activities in this area.
- All of the soils in the Grand Street ROW bordering the current development portion of the site have been completely surveyed down to native soils except for soils directly under the City electric line, which were inaccessible to surveying. Since soils have been surveyed to a depth of at least 3.5 feet over the electric line, this would not interfere with any anticipated construction activities.
- Soils and sidewalls of the proposed utility trenches located in Ohio and Grand Streets have been completely surveyed down to the depth of native soils. No further radiological surveying is necessary during construction activities. Additionally non-radiologically impacted soils have been excavated and removed for disposal in a landfill.

No further surveying of the Phase I/western 1/2/proposed development section of the property is necessary and construction activities can proceed without further screening or investigation. At such a time when the eastern portion/Phase II section is planned for development the RAC, ROW and streets will need to be surveyed under similar procedures developed during the screening activities conducted in the western section of the property.

7.0 REFERENCES

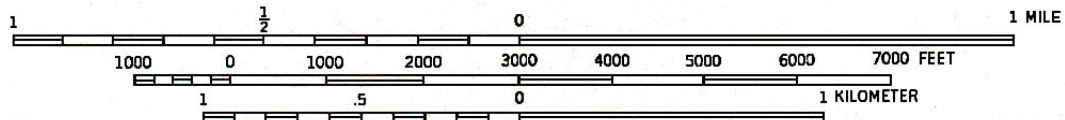
Operation Procedure for Gamma Spectroscopic Analysis of Soil Samples, USEPA information sheet, USEPA Region 5, Chicago, Illinois.

Before You Dig Tips for Construction Activities in Streeterville Area, February 2001, USEPA Region 5, Chicago, Illinois.

Figure 1
Site Location Map



Scale 1: 24 000
Contour Interval 10 Feet



UNITED STATES GEOLOGICAL SURVEY
CHICAGO LOOP QUADRANGLE
ILLINOIS - COOK CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)



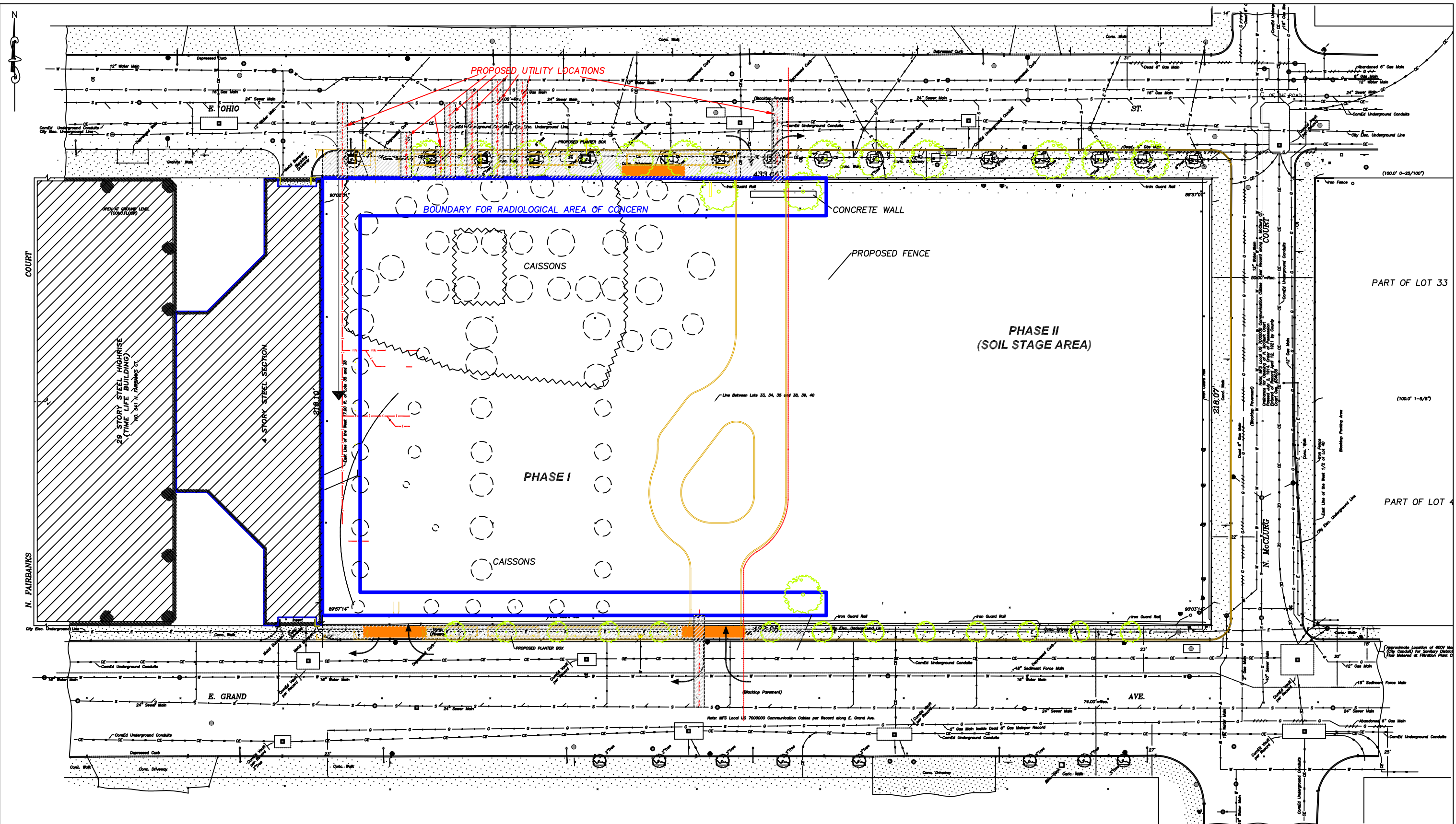
Quadrangle Location

1993



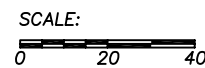
Figure 2

Site Plan with Radiological Areas of Concern



LEGEND

- CAISSONS
- STEEL SHEET PILING
- POTENTIAL RADIOLOGICAL CONTAMINATED SOILS WITHIN RIGHT-OF-WAY
- BOUNDARY FOR RADIOLOGICAL AREA OF CONCERN



200 N. LaSalle St * Suite 2600 * Chicago, IL * 60601
312.541.4200 Fax 312.541.0340

**SITE PLAN WITH RADIOLOGICAL
AREAS OF CONCERN**
341 E. OHIO STREET
CHICAGO, IL

Scale: 1:20
CADD File #: 4917-521-OSP
Figure: 2

Drawn: EE	Check:	Date: 9/27/04	<div style="display: flex; justify-content: space-between;"> <div> <p>Scale: 1:20</p> <p>CADD File #: 4917-521-OSP</p> </div> <div> <p>Figure: 2</p> </div> </div>
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Figure 3

Ohio & Grand Street Detail

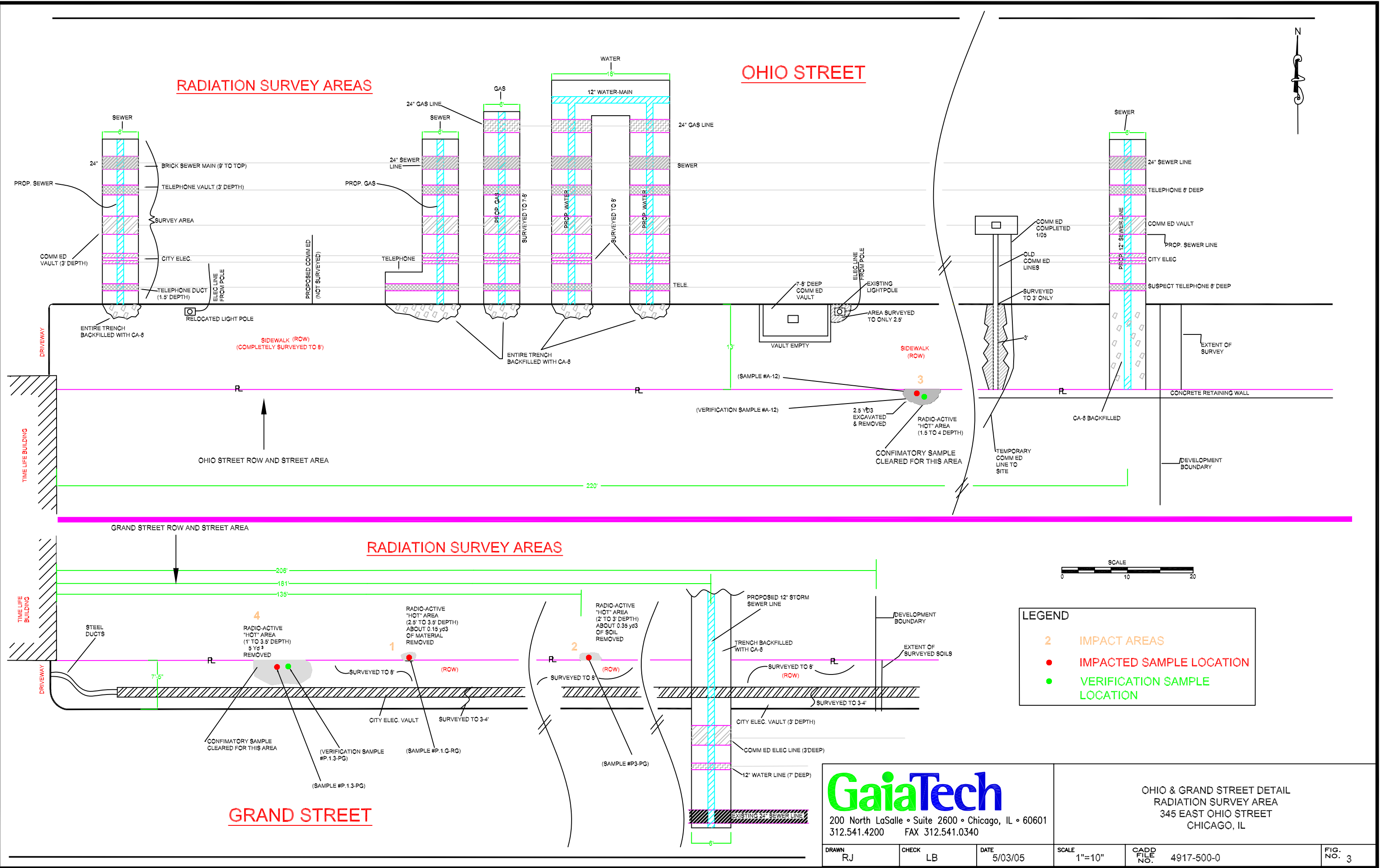


Table 1

High Resolution Gamma Spectroscopy Results – Impacted Samples

TABLE 1
HIGH RESOLUTION GAMMA SPECTROSCOPY RESULTS
(Impact Soil Levels)

Golub/OGM investors, LLC Site
345 East Ohio Street
Chicago, Illinois

Sample Date	Impact Area	RSSI Spectrum File No.	STS Sample No.	Ra-226*	Ra-228**	Total Radium	USEPA Cleanup Level
12/13/2004	1 - south RAC	43690	P1.G-RG	1.73	10.8	12.6	7.1 pCi/g
12/15/2004	2 - south RAC	43691	P3-PG	4.05	15.9	20	7.1 pCi/g
12/15/2004	3 - north RAC	43692	A-12	4.08	42.5	46.6	7.1 pCi/g
2/2/2005	4 - Grand Street ROW	43728	P.1.3-PG	0.88	10.8	11.68	7.1 pCi/g

Notes:

* Pb-214 used as surrogate for Ra-226

** Ac-228 measured as surrogate for Ra-228

Shaded indicates that concentration exceeds USEPA Cleanup Level

Table 2

High Resolution Gamma Spectroscopy Results – Verification Samples

TABLE 2
HIGH RESOLUTION GAMMA SPECTROSCOPY RESULTS
(verification samples)

Golub/OGM investors, LLC Site
345 East Ohio Street
Chicago, Illinois

Sample Date	Impact Area	RSSI Spectrum File No.	STS Sample No.	Ra-226*	Ra-228**	Total Radium	USEPA Cleasup Level
12/20/2004	3 - north RAC	-----	verification (A-12)	0.658	0.544	1.202	7.1 pCi/g
2/9/2005	4 - Grand Street ROW	-----	verification - P.1.3 PG	0.647	3.15	3.797	7.1 pCi/g

Notes:

* Pb-214 used as surrogate for Ra-226

** Ac-228 measured as surrogate for RA-228

Table 3

Waste Classification Soil Analytical Results

TABLE 3.
WASTE CLASSIFICATION SAMPLE RESULTS
(Detected Parameters)

Golub/OGM investors, LLC Site
345 East Ohio Street
Chicago, Illinois

Sample ID	Illinois Environmental Protection Agency - TACO Tier I Cleanup Objectives						WC-1
Date Sampled							17-Jan-05
Lab Sample ID							46762
Sample Location	Industrial Soil Ingestion	Industrial Soil Inhalation	Construction Worker Soil Ingestion	Construction Worker Soil Inhalation	Migration to Class I Groundwater	Migration to Class II Groundwater	Soil Stockpile
VOCs - US EPA Method 5035/8260	mg/kg						mg/kg
Xylenes	1,000,000	320	410,000	320	150	150	0.011
SVOCs - US EPA Method 3540C/8270C	mg/kg						mg/kg
Acenaphthene	120,000	*	120,000	*	570	2,900	<0.330
Acenaphthylene	NE	NE	NE	NE	NE	NE	0.901
Anthracene	610,000	*	610,000	*	12,000	59,000	1.55
Benzo(a)anthracene	8	*	170	*	2	8	6.2
Benzo(a)pyrene	0.8	*	17	*	8	82	6.98
Benzo(b)fluoranthene	8	*	170	*	5	25	6.85
Benzo(g,h,i)perylene	NE	NE	NE	NE	NE	NE	2.38
Benzo(k)fluoranthene	78	*	1,700	*	49	250	4.73
Chrysene	780	*	17,000	*	160	800	6.3
Dibenzofuran							0.388
Dibenzo(a,h)anthracene	0.8	*	17	*	2	7.6	1.41
Fluoranthene	82,000	*	82,000	*	4,300	21,000	9.8
Fluorene	82,000	*	82,000	*	560	2,800	0.398
Indeno(1,2,3-cd)pyrene	8	*	170	*	14	69	2.08
Naphthalene	41,000	270	4,100	1.8	12	18	0.543
Phenanthrene	NE	NE	NE	NE	NE	NE	4.28
Pyrene	61,000	*	61,000	*	4,200	21,000	8.72
Polychlorinated Biphenyls (PCBs) USEPA Method 8082	mg/kg						mg/kg
All Aroclors	1	*	1	*	*	*	Not Detected
Pesticides and Herbicides - US EPA Method 8081A & 8151	mg/kg						mg/kg
All Compounds	Varies	Varies	Varies	Varies	Varies	Varies	Not Detected
Total RCRA Metals - USEPA Method 3050/6010B (Method 7470A for mercury)	mg/kg				Background Concentrations in Metropolitan Areas		mg/kg
Arsenic	13	1,200	61	25,000	13		10.9
Barium	140,000	910,000	14,000	870,000	110		48.9
Cadmium	2,000	2,800	200	59,000	0.6		0.8
Chromium	10,000	420	4,100	8,800	16.2		9.2
Lead	400	NE	400	NE	36		704
Mercury	610	540,000	61	52,000	0.06		1.36
Selenium	10,000	NE	1,000	NE	0.48		<0.2
Silver	10,000	NE	1,000	NE	0.55		0.4
TCLP Metals - USEPA Method 1311					mg/L		mg/L
Arsenic					0.05	0.2	0.004
Barium					2	2	<1
Cadmium					0.005	0.5	0.004
Chromium					0.1	1	0.003
Lead					0.0075	0.1	0.166
Mercury					0.002	0.01	<0.0005
Selenium					0.05	0.05	<0.002
Silver					0.05	*	<0.001

Notes:

Sample analyzed at First Environmental Laboratories in Naperville, Illinois; Only detected compounds are listed.
 Soil Remediation Objectives adapted from Illinois Environmental Protection Agency (IEPA)

Title 35 Illinois Administrative Code 742 - TACO (July 2001).

RCRA: Resource Conservation and Recovery Act; SVOCs: Semi-VOCs, VOCs: Volatile Organic Compounds

Shaded indicates that concentration exceeds a Tier 1 remediation objective

NE : Not Established

* : No toxicity criteria available for this route of exposure.

Other Analysis	(mg/kg)
Reactive Cyanide	<10
Reactive Sulfide	<10
Phenols	<2.5
Flash Point (open cup)	<212° F
Paint Filter	Passed
pH	9.19

Appendix A

EPA Approved Work Plan



REVISED SOIL MANAGEMENT WORKPLAN
341 E. Ohio Street
Chicago, Illinois

Prepared for
OGM Investors, LLC

Prepared By
GaiaTech Incorporated

December 10, 2004

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1.0 Introduction

This Revised Soil Management Workplan was prepared to document protocol, techniques and methodologies to be used to field-screen and manage soils surrounding the perimeter of the Phase I area of the property located at 341 East Ohio Street, Chicago, Illinois (the Site) prior to the site development activities. The Soil Management Workplan was initially submitted to the US Environmental Protection Agency (USEPA) for review on November 10, 2004. This Revised Soil Management Workplan has incorporated all comments made by the USEPA on November 30, 2004.

This workplan is not considered a Remedial Action Plan and as such only incorporates confirmatory sampling as it applies to worker safety and soil management considerations. The goal is to implement this Workplan before the site development to ensure it will be safe for trade people to work in the areas without environmental oversight during the development activities in the areas. OGM Investors, LLC plans to purchase the subject property on December 13, 2004. Immediately following the closing, this Soil Management Plan will be implemented.

The entire property has completed an approved remediation for radioactive and pesticide-contaminated soils. To date all identified radioactive and pesticide-impacted soils were removed from the Site, and all the post remediation samples have met the clean-up objectives established by the USEPA and/or Illinois Environmental Protection Agency (IEPA). Based on these closure activities, no land use or construction worker environmental restrictions apply on the property during site development.

Although the Site has completed an approved remediation, three areas immediately adjacent to the Site have been identified as containing radiologically impacted soils (Reference Figure 1). The areas are located within the City of Chicago owned right-of-way (ROW) along the Grand Avenue and Ohio Street sidewalks. Additionally, to avoid undermining the adjacent property to the west and the right-of-way to the north, east and south, a wedge of soil (with a slope of 1 vertical to 1.5 horizontal) was left undisturbed around the perimeter of the site. The inner limit of the wedge has been identified on Figure 1. Extensive boring and sampling within these soils has indicated that they do not contain radiological impacted soils. However, because the soils have not been screened in 18-inch lifts, the area between the inner boundary and the site perimeter will be designated as the radiological area of concern (RAC) for discussion purposes within this Workplan.

This Workplan will discuss all issues related to performing subsurface excavation for sheet piling installation, caisson drilling, utility installation, sidewalk removal, and landscaping installation within the ROW and the RAC. Although, as discussed in the above paragraph, previous perimeter subsurface sampling has only identified three contaminated areas, the procedures outlined within this plan will be implemented for subsurface work conducted anywhere within the ROW and RAC. As required by the USEPA and the City of Chicago, a special permit from Chicago Department of Environment to conduct subsurface work within the ROW is required. Due to the known impacts in the ROW, additional measures including radiation surveillance are being incorporated into the workplan for the ROW area. Any radiation-impacted soils exceeding the thresholds described in the following sections will be properly managed and disposed of off-site by Kerr-McGee.

Background

The Site is currently vacant and consists of approximately 2.16 acre acres, to be owned after closing by OGM Investors, LLC. (due the early December 2004). During the 2000 due diligence review, GaiaTech detected elevated levels of gamma radiation on the subject site. Based on the findings, on May 31, 2000, TRS (the prior owner) informed the USEPA of the elevated levels of radiation at the property. USEPA designated the subject property as the Lindsay Light II Site/(OU3/North McClurg Court). On July 13,

2000, USEPA notified TRS and Kerr McGee Chemical L.L.C. that the radioactive material at the property was off-site contamination related to the Lindsay Light Unilateral Administrative Order (UAO) and subject to the UAO as amended.

On May 15, 2002, the USEPA approved the TRS's Removal Work Plan for the radioactive soils at the property. From June 6, 2002 through October 2, 2002, TRS implemented the approved work plan to remove both thorium and pesticide-contaminated soils. Approximately 6,233 tons of radioactive soils were excavated, shipped and disposed of at the Envirocare Facility in Clive, Utah. Confirmatory samples met the soil clean-up criteria of 7.1 picoCuries per gram (pCi/g) total radium (Ra-226 + Ra-228) which was determined by the USEPA. Approximately 5,689 tons of pesticide-impacted soils were removed, transported and disposed of at the CID Landfill in Chicago, Illinois. The pesticide contamination was cleaned up to meet the Illinois Tier I soil remediation objectives for a residential property. On December 31, 2002, TRS through their contractor, STS Consultants, LTD., completed a Completion Report – Time-Critical Removal Action for the property and submitted it to the USEPA.

On March 21, 2003, USEPA issued a letter of Completion of Work for Lindsay Light II Site/(OU3/North McClurg Court), 341 East Ohio Street, Chicago, Illinois. USEPA concurred that TRS removed all radioactive-contaminated material within the footprint of the subject property. However, three radioactive-contaminated areas were identified below the immediately adjacent Grand Avenue and Ohio Street sidewalks. Proper measures and radiation surveillance as required by the City of Chicago permit “moratorium” will be required if the areas are disturbed.

2.0 Permits

All necessary permits and sign-offs will be secured prior to the implementation of excavation activities within the Site or ROW. Permits and sign-offs for work may include but are not limited to the following:

- Foundation permit; (Under General Contractor - Walsh Construction #20419052)
- Excavation permit; (Under General Contractor - Walsh Construction)
- Department of Environment Form No. DOE_ROW.01 (Received 11/22/04)
- Board of Underground Review; (Reviewed by Zenon Stuck 12/04)
- Street closure/sidewalk closure permit (Reviewed by Mike Simon 12/04);
- Consultation with sewer department;
- Meetings with utilities; and
- Consultation with the Chicago Department of Environment

As the City of Chicago has a moratorium against performing any work in the streets and sidewalk areas located within the Central Business District that starts November 20, 2004 through January 3, 2005, the proposed radioactive survey and soil testing will be conducted only within the footprint of the subject property in December 2004. The radioactive survey and soil testing will be conducted for the streets and the sidewalks of the site in January 2005.

3.0 Incorporated Documents

In addition to the practices and procedures outlined in this Workplan, the following activities will also be conducted in accordance with the Time-Critical Removal Action Workplan, Lindsay Light II Site/(OU3/North McClurg Court), 341 East Ohio Street, Chicago, Illinois, prepared by STS, which was approved by the USEPA on May 15, 2002:

- Gamma radiological surveying
- Soil stockpile sampling (If required, although no stockpiling is anticipated)
- Equipment calibration
- Personal air monitoring
- Decontamination procedures for equipment potentially contaminated with radiologically impacted soils.

Those portions of the Removal Action Workplan applicable to the above listed activities are hereby incorporated by reference.

Incoming backfill for the sidewalk area adjacent to the site will be measured for its total radium concentration. All incoming soils will not exceed 3.7 picoCuries per gram (pCi/g) and on-site soil will be used so long as it is under the clean-up criteria of 7.1 pCi/g, total radium. No testing will be required if CA-6 (or crushed stone) is used as backfill.

4.0 Subsurface Excavation

Potential subsurface work within the ROW or RAC includes (but is not limited to) the installation of steel sheet piling, drilling for caissons, installation of utilities, removal of concrete sidewalks, and the installation of landscaping planter areas. After removal of the impacted soils and/or placement of shielding materials, and no elevated levels of radiological screening are detected. If other areas of impact are detected beyond the three known areas of radioactive impact, restrictions will be applied as necessary under the structures of this Soil Management Plan, until such a time as the new areas are designated clean or decontaminated.

The following contractors/consultants will be involved with the project:

GaiaTech, Inc. - Overall project planning, permitting, onsite coordination and project management.

STS Consultants - Subcontractor to GaiaTech that will be providing additional technical assistance and experienced screening technician and certified health physicist. STS will also provide personnel monitoring services and collect any samples as necessary.

Thermal Remediation Inc.(TRI) - Qualified remediation contractor subcontracted to GaiaTech that will be providing excavation equipment and operators during trenching and remedial activities.

Kerr McGee - Will be providing waste containers and providing monitoring, hauling and disposal of any waste generated during onsite and ROW activities.

Walsh Construction - General Construction contractor will not be involved in the screening or remedial activities. All construction work will proceed only after an area has been screened, shielded or remediated as necessary to comply with state and federal regulations. General contractor will not be allowed to operate in the area where screening or remedial activities are being conducted.

4.1 General Excavation Guidelines

Prior to the commencement of subsurface work within the ROW or RAC, a field technician under the direction of a certified health physicist will be present on site for the purpose of surveying soils for radiological contamination. Soil surveys will be conducted with a calibrated hand-held gamma-ray detector Ludlum Model. The gamma detector will be calibrated using calibration blocks from Kerr McGee.

Calibration for the Ludlum Model 2221 with a two by two (2 x 2) sodium iodide probe with calibrations for shielded and unshielded probe are attached in Appendix A (Standard operating Procedures for instrument calibration). Calibration of the instrument will be conducted with USEPA personnel present or with their consent. A form will be completed with the survey results and will contain location, type of instrument, serial number, person doing the measurement, date and time of measurement. Each instrument will have a serial number and calibration results from the Kerr-McGee West Chicago Facility that is in response to calibration blocks from the West Chicago site. Field technicians and the project health physicist's resumes are attached in Appendix B.

All soils will be screened using a hand-held gamma-ray detector and excavated in lifts not to exceed 18-inches. Soils found to have readings that correlate to a soil concentration in excess of 7.1 pCi/g

total radium will be considered radiologically impacted. Radiologically impacted soils shall be managed and disposed in accordance with Section 5.0.

4.1.1 RAC Soils

Soils within the RAC have been evaluated with numerous subsurface borings during previous site investigations and closure activities, and there is a high degree of certainty that soils in this area are not radiologically impacted. Soils within this area will be screened by a field technician with a hand-held gamma-ray detector. If the initial survey indicates readings that correlate to a soil concentration equal to or below 7.1 pCi/g of total radium, the soils will be classified as clean. These soils can be managed anywhere within the site boundaries by the prime contractor without any further considerations. If exceeding 7.1 pCi/g total radium, radiologically-impacted soils shall be managed and disposed in accordance with Section 5.0. And the USEPA will be informed of such the findings.

4.1.2 ROW Soils

Soils excavated beneath the ROW will be initially surveyed by a field technician with a hand-held gamma-ray detector. Readings will be made of the soils in-situ by lowering the probe down the sidewalls of the excavation to check for radium concentrations as the excavation proceeds and all removed soils on the top surface of every bucket will be screened as well. If the initial survey indicates readings that correlate to total radium concentrations equal to or below 7.1 pCi/g of total radium, the soils will be deemed acceptable to be managed in place or returned to the original excavation. Soils that are under the 7.1 pCi/g will be placed on plastic until they can be returned to the excavation. If the radiation survey indicates that total radium concentrations exceed 7.1 pCi/g, the radiologically-impacted soils will be excavated and placed in Kerr McGee-supplied containers (metal shipping containers with metal integrated top) pending off-site disposal in accordance with Section 5.0. In general the depth of the excavation will be dependant on the depth of the fill materials in any given location, that could potentially contain impact. Excavation depth is not expected to exceed 10 to 12 feet.

No stockpiling of radiologically-impacted soils will be conducted. As discussed in Section 5.0, all impacted soils will be transferred to appropriate containers for proper offsite disposal. No long term storage of the containers is anticipated and excavated soils will be placed in the containers for quick transportation off site. The containers will be placed in a fenced and locked enclosure and the container will be locked and appropriate warring signs placed on the container. When they are full, they will be properly transported off-site for disposal by Kerr McGee in approximately one week, but not more than one month.

4.1.3 Concrete Rubble

All concrete rubble removed from the RAC or ROW will be surveyed for radioactivity. If the initial survey indicates readings that correlate to total radium concentrations equal to or below 7.1 pCi/g of total radium, the rubble will be considered clean and disposed as construction debris. If indicated readings correlate to total radium concentrations exceeding 7.1 pCi/g of total radium, the rubble will be broom cleaned to remove any adhering soil and resurveyed. If the resurvey indicates that the material has been decontaminated, the rubble will be disposed as construction debris. If the resurvey indicates that the material has not been decontaminated, the rubble will be disposed as radiologically impacted in accordance with Section 5.0.

Procedures for the surveying of concrete debris, includes the screening of bottom and side surfaces of the concrete with the Ludlum Model 2221 survey instrument. Any soils adhering to the bottom of concrete will first be shoveled/ swept off and surveyed independently. Concrete with a very rough texture will be surveyed in all indentations to insure proper coverage of the material with the survey instrument.

4.2 Sheet Piling

Current construction plans call for the installation of steel sheet piling along a portion of the western and northern perimeter of the site. The sheet piling along the western perimeter falls within the RAC (approximately 10-18 feet within the western property boundary line). The sheet piling along the northern perimeter will be installed approximately 1 to 2 feet within the ROW, and has been approved by the City of Chicago Department of Construction and Permits (DCAP).

4.2.1 Western Perimeter

The installation of steel sheet piling will be completed by the general construction contractor after the area has been surveyed. Excavation test pits will be excavated where sheet piling will be installed along the western part of the site where it intersects the RAC boundary. After the survey of the proposed location of the sheet piling, the contractor can install the sheet piling if no radiological impacted soils were found. If radiological impacted soils are found the soils will be excavated to meet 7.1 pCi/g. Soils will be surveyed, excavated and handled in accordance with Sections 4.1 and 5.0.

4.2.2 Northern Perimeter

Sheet piling installation along the northern perimeter will likely require the removal of concrete overlying the ROW. A qualified remedial contractor shall remove the concrete in accordance with Section 4.1 & 5.0. Sheet piling will only be installed after the area has been screened and remediated if necessary.

After the removal of overlying concrete, the surface soils overlying the proposed sheet piling location will be surveyed. Test pits will be excavated and screened prior to installation of sheet piling in this area. If screening readings indicate that surface soils are not radiologically impacted, the primary contractor can proceed with the sheet piling installation without any further oversight. However, if readings indicate the soils are radiologically impacted, a qualified remedial contractor will remove the impacted soils down to native soils (approximately 8-12 feet bgs) or a depth allowing installation of shielding materials. Soils will be surveyed, excavated and handled in accordance with Sections 4.1 and 5.0.

After the placement of shielding materials, the area will be resurveyed for radiation to ensure radiation levels are below 2 mrem/hr, as defined in Table 7.1 of the attached Health and Safety Plan. Suitable shielding materials include but are not limited to clean soils, plastic sheets, plywood and/or concrete. After the placement of shielding the remaining impact will also comply with the 50 mrem/yr under Title 10, Part 20.1302(b)(2)(ii) of the Code of Federal Regulations (CFR). GaiaTech in conjunction with the recommendations of the Certified Health physicist will set time limits for exposure to anticipated radiation levels to screening technicians or other project workers.

No subsurface work shall be conducted by the primary contractor within the radiological area of concern (RAC) or within the right-of-way (ROW) until soils within the vicinity of the proposed work have been surveyed under the direction of a certified health physicist.

4.3 Caisson Drilling

The installation of caissons has the potential to generate radiologically impacted soil cuttings from the upper 12-feet of soils. As such, special precautions will be taken to ensure that all soils in the caisson area meet the “clean soil” criteria established in Sections 4.1.1 & 4.1.2.

As indicated on Figure 1, a number of caisson are proposed within the RAC along the northern, southern, and western perimeters of the Phase I area of the property. For each of these locations, a field technician will survey the soils while a qualified remedial contractor removes soils overlying the drilling location down to native soils (approximately twelve feet).

Areas that are designated for caisson installation will first have locations surveyed and marked on the property. The surface of the excavation area will be initial checked with the screening instrument. At all locations, an excavation will be opened whereby all soils may be screened *in-situ* on the sidewalls and floor of the excavation. If soils do not appear to contain elevated radiation readings the soils will be removed from the excavation and the top of the bucket screened with the designated screening instrument. If soils are found with no elevated levels the soils will be placed on-site. If elevated levels are found (above 7.1 pCi/g), the impacted soils will be placed in a radiation container for disposal. After screening is completed, clean excavated soils will be re-compacted into the excavation.

As indicated in Section 4.1.1, soils surveyed within the RAC and determined to be clean can be backfilled into the excavation or managed on-site as directed by the prime contractor.

4.4 Concrete Sidewalk Removal

Site development will require the removal and subsequent replacement of sidewalks overlying the right-of-way along portions of the north and south perimeter of Phase I portion of the site. A qualified remedial contractor shall remove the concrete in accordance with Section 4.1. After the removal of overlying concrete, surface soils will be surveyed by a field technician. If the surface soils are determined to be radiologically impacted, all soils within the vicinity of the elevated readings will be excavated down to native soils (approximately 8-12 feet bgs) or a depth allowing installation of shielding materials. Depending on the potential need for shielding, it may consist of plastic sheeting, plywood or concrete. Soils will be surveyed, excavated and handled in accordance with Sections 4.1 & 5.0.

After the placement of shielding materials, if used, the area will be resurveyed by a field technician for radiation to ensure radiation levels are below 2 mrem/hr. Suitable shielding materials include but are not limited to clean soils, gravel, plywood and/or concrete pavement.

For the areas of ROW where no utilities or planters are located, and no elevated levels of radiological screening are detected, no additional excavation or survey will be conducted as it is safe for the prime contractor to install new concrete pavement.

4.5 Utility Installation

Site development will require the installation of utilities within the ROW and the RAC. Proposed utility line locations are indicated on Figure 1. For each of these locations, a qualified remedial contractor will remove concrete and soils overlying the utility line location to the required depth of utility installation. Soils will be surveyed, excavated and handled in accordance with Sections 4.1 &

5.0. All radiation surveying will be done prior to any construction activities at the site or in the ROW. Surveying will be done on the ground surface prior to excavation as well as *in-situ* along the floor and sidewalls of the excavation and in the bucket as soils are removed from the excavation.

Upon completion of the trench excavation, the floor and walls will be surveyed by a field technician for radiation. If the excavated areas are found to contain radiologically impacted soils, the trench will be excavated down to native soils (approximately 8-12 feet bgs) or a depth below the proposed depths of the utilities, allowing installation of shielding materials.

After the placement of shielding materials if used, the area will be resurveyed for radiation to ensure radiation levels are below 2 mrem/hr. Suitable shielding materials include but are not limited to clean soils/gravel, plywood and/or concrete pavement.

Upon confirmation that radiation levels meet the designated 2 mrem/hr criteria, the primary contractor will be free to install utilities as required and backfill the excavation, without further environmental oversight.

4.6 Installation of Landscaping Planter Areas

As indicated on Figure 1, several landscaping planter areas are proposed within the ROW. For each of these locations, a qualified remedial contractor will remove soils overlying the proposed landscaping planter area to the depth (approximately 4 to 8 feet bgs) required by the landscaping contractor. Soils will be surveyed, excavated and handled in accordance with Sections 4.1 & 5.0.

Upon completion of the planter excavation, the floor and walls will be surveyed for radiation. If the excavated areas are found to contain radiologically impacted soils, the excavation will continue down to native soils (approximately 8-12 feet bgs) or below the proposed depths of the bottoms of the planters allowing installation of shielding materials.

After the placement of shielding materials if used, the area will be resurveyed for radiation to ensure radiation levels are below 2 mrem/hr. Suitable shielding materials include but are not limited to clean soils/gravel and/or concrete pavement.

After no elevated levels of radiological screening are detected, the primary contractor or landscaping contractor will plant the trees as required and backfill the excavation, without any environmental oversight.

5.0 Radiologically Impacted Soil Management & Disposal

Soils identified as radiologically impacted shall be placed directly into a shipping container suitable for rail shipment to an approved landfill. The containers will be placed in a fenced and locked enclosure and the container will be locked and appropriate warning signs placed on the container.

Kerr-McGee will be responsible for supplying approved shipping containers and the transportation and disposal of radiologically impacted materials removed from the site. That responsibility includes health physics personnel to survey transport containers, subcontractor transportation and logistics personnel, and documentation for shipping and disposal. When they are full, they will be properly transported off-site for disposal by Kerr McGee in approximately one week, but not more than one month.

All work involving the excavation and/or relocation of radiologically impacted soils shall be conducted by a qualified remedial contractor utilizing workers with appropriate OSHA 40-hr trained workers.

6.0 Health & Safety Plan

All work involving the excavation, handling, or disposal of potentially radiologically impacted soils or identified radiologically impacted soils will be conducted in accordance with the attached Health & Safety Plan (Attachment 1). Soil screened with a hand held instrument will not be considered as a final determination of soil concentration, but will provide the necessary information on working conditions and the need for shielding or soil removal. Soil concentrations measured with an appropriate laboratory instrument, such as a sodium iodide counter used with the NUTRANL equipment or with germanium counters used with gamma spectroscopy equipment, will be considered as a final determination.

Potentially radiological impacted soils are defined as follows:

- Soils within the RAC or within the ROW that have not been surveyed by a field technician under the direction of a certified health physicist using a calibrated hand-held gamma-ray detector. This will be used to provide information on safe working conditions during construction.

Identified radiological impacted soils are defined as follows:

- Soils within the RAC or within the ROW that have been surveyed by a field technician under the direction of a certified health physicist using a calibrated hand-held gamma-ray detector.
- Indicated readings correlate to a soil concentration that exceeds 7.1 pCi/g total radium.

7.0 Air Monitoring

Personnel air monitoring will be conducted during all activities involving the excavation or handling of radiologically impacted soils in accordance with the attached Health and Safety plan.

Appendix B

USEPA Correspondence



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
 77 WEST JACKSON BOULEVARD
 CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

SE-5J

NOV 30 2004

VIA FACSIMILE (312) 541-0340 AND U.S. MAIL

Mr. John Yang
 GaiaTech
 200 North LaSalle Street, Suite 2600
 Chicago, Illinois 60601

Rory Tihinen
312-907-1537

RE: Soil Management Plan, Former Time Life Property, 341 East Ohio Street, Chicago, Illinois, prepared for OGM Investors, LLC, by GaiaTech, Inc., dated November 10, 2004, (Lindsay Light II /TRS Property/341 East Ohio, Chicago, Illinois)

Dear Mr. Yang:

We have reviewed the above document and have the following general and specific comments:

General Comments

1. U.S. EPA policy will be to reference and rely on Federal regulations unless Illinois regulations are more restrictive.
2. It is U.S. EPA protocol to rely foremostly on soil concentration for verification of radiologically clean areas. Gamma surveys are good seek-and-find methods and will give a reasonable approximation of soil concentration, but they are not the fundamental parameter for designating "clean" areas. Verification areas will be no more than 100 square meters in extent when working on the contaminated sidewalks.
3. Temporary storage of radiologically contaminated soils must be tied to surveillance during storage and a time limit must be specified. Furthermore, a secure location is stated. Does this mean you will have a security guard after hours?
4. Since the city has a moratorium in the Central Building District, restricting your work to the building footprint from November 20, 2004 until January 3, 2005, clearly state the methods/techniques that will be used to keep the contamination identified under the sidewalks out of your footprint since you plan on working in December 2004.

P3

✓

Specific Comments

1. Page 4 of 11, Section 3.0 - It should be noted that incoming backfill for the sidewalk excavations must be measured for its total radium concentration, which must not exceed 3.7 picoCuries per gram (pCi/g). On-site soil may be used as backfill so long as it is under the clean-up criterion of 7.1 pCi/g, total radium.
2. Page 5 of 11, Section 4.0, paragraph 1 - If development extends beyond the three known radiation areas along Grand and Ohio where radiation surveys are necessary then restrictions must be applied and, the strictures of this Soil Management Plan followed, until those areas are designated clean or decontaminated.
3. Page 5 of 11, Section 4.1- The type of instrument to be used must be specified and the Standard Operating Procedures for calibrating the instrument and for its use during site surveillance must be provided. In order to standardize measurements and ensure comparability with U.S. EPA instruments, it is recommended that the Ludlum Model 2221 with a two by two (2 x 2) sodium iodide probe be used, with calibrations for both a shielded and unshielded 2 x 2 sodium iodide probe. We would also expect to see some kind of form to document survey results. This form should state person doing the survey, instrument used, serial #, results, cut-off on instrument, date and time survey performed. Each instrument should have a serial #, calibration results from West Chicago Facility, that is the response to the West Chicago blocks, etc. Provide the resume of the field technician and the Certified Health Physicist mentioned in this section.
4. Page 5 of 11, Section 4.1.2 - To every extent possible, surveys should be made of soil *in situ*. In addition, measurements can also be made along the top surface of soils in the excavation bucket.

"Temporary" should be explained with regard to time and to protection of these containers.

Native soils do not need to be excavated to 8-12 feet below grade surface unless there is contamination in this column. Only contaminated soil requires excavation.
5. Page 5 of 11, Section 4.1.3 - The surveillance procedure for concrete must be explained in more detail. Surveillance of rubble is different than that for soil because of its rough surface.
6. Page 6 of 11, Section 4.2.1 - How are you going to install the sheet piling? That is, are you pressing, drilling, or vibrating?
7. Page 6 of 11, Section 4.2.2, paragraph 3 - Selection of 2 mrem/hr still will require a limitation to 50 mrem/yr according to Title 10, Part 20.1302(b)(2)(ii) of the Code of Federal Regulations (Note: It is U.S. EPA's practice to refer to Federal regulations for

criteria unless Illinois regulations are more restrictive). For unrestricted access by workers, an allowable time limit must be set as well.

- P5
- See Notes
8. Page 6 of 11, State the names of all contractors involved. If not yet known, please provide this information as soon as it is known. For example, page 6 of 11, mentions a primary contractor and qualified remedial contractor.
9. Page 7 of 11, Section 4.3 - There needs to be more specificity on how caisson soils will be surveyed.
10. Page 7 of 11, Section 4.4 - What kind of "shielding materials" are you considering?
11. Page 7 of 11, Section 4.5 - Soils should be surveyed before any excavation occurs and, during the excavation both in the bucket and on the floor and walls of the excavation (*in-situ*) measurements prior to excavation.
- See Notes
12. Page 10 of 11, Section 6.0, bullets - Hand held survey instrument readings in counts per minute are not the final, official, determinant of soil concentration. Soil concentration must be measured with laboratory instruments, such as the sodium iodide counters used with the NUTRANL equipment or with the germanium counters used with gamma spectroscopy equipment.
13. HASP, page 1, paragraph 1 - It is not clear how trade people will be covered, radiologically, under their own health and safety plans. It may not be reasonable to assume that these plans have any radiological component. In which case, how will this group be protected radiologically?
14. HASP, page 1, paragraph 2 - It appears there is a typo in that CFI should probably be CFR.
15. HASP, page 4, Section 4.1 - It should be noted that there are two radiums (Ra-226, Ra-228) and two radons (Rn-220, Rn-222) that are the principal contaminants on this site.
16. HASP, Section 5.1 - Training should include discussion of radiation basics.
17. HASP, Section 7.1 - A fundamental protocol for the U.S. EPA is that there be "no visible dust."
18. HASP, Section 7.2 - There needs to be a more detailed explanation of how the air filters will be analyzed, both lapel monitor filters and high volume air samplers. It is important that there be an early analysis, the next morning, of the filter so that any deviations from normal can lead to modifications of work practices that same day. The early reading may only be sufficient to compare to preceding early measurements to detect abnormal levels, but this may be sufficient to alter work practices. Details should include how filters will be sent to the lab promptly. There needs to be an explanation of how samples can be sent

to a lab, analyzed, and results returned, all in the day after collection. The time for which final concentrations are returned from the lab should be specified.

The radionuclide of comparison for air concentrations will be the most restrictive radionuclide in the thorium-232 chain. If gross alpha measurements are used, this may require stating the number of alpha decays used for conversion of gross alpha concentration to radionuclide-specific concentration.

Regulatory comparisons should be to Federal regulations and only Illinois regulations if they are more restrictive.

Paragraph 4 refers to analytical procedures but none are included in this document. These need to be provided.

In paragraph 5, a count is referred to but the type is not designated. This needs to be specified.

19. HASP, Section 7.5 - Radiation surveys of excavations, backhoe buckets, etc. for seek-and-find efforts should be done with a sodium iodide detector. A micro-R meter is not a good instrument for this type of activity. It is acceptable when dose needs to be measured.
20. HASP, Section 7.6 - Decontamination should be done to regulatory levels as well as to ALARA. For example, release of equipment should meet Nuclear Regulatory Commission (NRC) Regulatory Guide 1.86 level and Illinois Division of Nuclear Safety levels if these are more restrictive.
21. HASP, Section 7.7.1 - It is not standard practice to smear workers to determine if they are contaminated. Usually this is done with a Geiger-Mueller (GM) pancake detector. We would prefer you use a GM pancake.

Actions should also be based on gamma exposure rates.

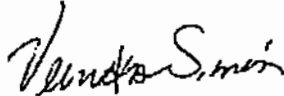
It has been U.S. EPA experience on thorium sites in Streeterville and West Chicago, Illinois that the thorium component is insoluble, but the uranium component has been found to be soluble. The radium levels (Ra-226, Ra-228) may or may not be soluble depending upon the chemical form.

22. HASP, Section 8.0 - Work in exclusion zones must be in modified Level D which should include, at the least, hard hat, safety glasses, tyvek coveralls, surgical gloves, safety shoes, and booties.
23. HASP, Section 9.0 - There needs to be a numerical criterion at which an individual will be considered.

24. HASP, Section 9.4 - The segregation process needs to be discussed in more detail, including what types of containers will be used for radioactive and non-radioactive wastes.
25. HASP, Section 10.1- If water is to be used for decontamination of individuals or equipment, the monitoring and disposal process must be specified, including criteria to be applied.

If you have any questions regarding this correspondence, please contact me at (312) 886-3601 or Larry Jensen, Health Physicist, at (312) 886-5026. Please direct any legal questions to Mary Fulghum, Associate Regional Counsel, at (312) 886-4693 or Cathleen Martwick, Associate Regional Counsel at (312) 886-7166.

Sincerely,



Verneta Simon
On-Scene Coordinator

cc: Rhamat Begum, Chicago Department of Environment
Benct Haller, Chicago Department of Planning and Development



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:
SE-5J

DEC 07 2004

VIA FACSIMILE (312) 541-0340 AND U.S. MAIL

Mr. John Yang
GaiaTech
200 North LaSalle Street, Suite 2600
Chicago, Illinois 60601

RE: Soil Management Plan, Former Time Life Property, 341 East Ohio Street, Chicago, Illinois, prepared for OGM Investors, LLC, by GaiaTech, Inc., dated November 10, 2004, (Lindsay Light II /TRS Property/341 East Ohio, Chicago, Illinois)

Dear Mr. Yang:

On Thursday, December 2, 2004, we discussed our comments on the above-referenced plan, which were sent to you in a letter dated November 29, 2004. Our discussion centered on General Comment #2, #4, and Specific Comment #1. These comments have been reproduced below to ease discussion.

General Comments

2. It is U.S. EPA protocol to rely foremostly on soil concentration for verification of radiologically clean areas. Gamma surveys are good seek-and-find methods and will give a reasonable approximation of soil concentration, but they are not the fundamental parameter for designating "clean" areas. Verification areas will be no more than 100 square meters in extent when working on the contaminated sidewalks.
4. Since the city has a moratorium in the Central Building District, restricting your work to the building footprint from November 20, 2004 until January 3, 2005, clearly state the methods/techniques that will be used to keep the contamination identified under the sidewalks out of your footprint since you plan on working in December 2004.

Specific Comments

1. Page 4 of 11, Section 3.0 - It should be noted that incoming backfill for the sidewalk excavations must be measured for its total radium concentration, which must not exceed 3.7 picoCuries per gram (pCi/g). On-site soil may be used as backfill so long as it is under the clean-up criterion of 7.1 pCi/g, total radium.

General Comment # 2 and Specific Comment # 1 are directed towards any sidewalk excavation work that involves the three known locations on East Grand and Ohio Streets. U.S. EPA expects your client to remove and dispose of any contaminated soil in these three known areas, collect a sample, and, if below 7.1 pCi/g, contact us. U. S. EPA will survey the area, and collect a composite sample. In the past the responsible party/property owner has analyzed the sample on NUTRANL software because this is quick and it has been found to give conservative results. If you wish to use gamma spectroscopy we can explain to you the parameters we expect to be used. If the soil sample is below or equal to 7.1 pCi/g, we can approve the area as "clean". Then, U.S. EPA will take the sample and send it to either Argonne National Laboratory or USEPA's National Air and Radiation Environmental Laboratory for the official verification analysis. It would be very helpful for us to have your sample results before we send out samples for the official verification

If backfill for the sidewalk is obtained, it must not exceed 3.7 pCi/g or use CA-6, or use soil from the building foot-print. Please note we are not expecting any soil from the footprint to exceed 7.1 pCi/g. At any rate, we would like to be kept informed by a prompt telephone call and follow-up written report of any radiological analyses.

General Comment #4 dealt with how you were going to start the building footprint work. You have explained that you will not be working within 5 feet of the sidewalk and that there will not be any way for the three areas known to have contamination under the sidewalk to be moved into the building footprint.

If you have any questions regarding this correspondence, please contact me at (312) 886-3601 or Larry Jensen, Health Physicist, at (312) 886-5026. Please direct any legal questions to Mary Fulghum, Associate Regional Counsel, at (312) 886-4693 or Cathleen Martwick, Associate Regional Counsel at (312) 886-7166. Otherwise, we assume that all comments presented in our letter dated November 29, 2004, will be incorporated..

Sincerely,



Verneta Simon
On-Scene Coordinator

cc: Rhamat Begum, Chicago Department of Environment
Benet Haller, Chicago Department of Planning and Development



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

JAN 12 2005

REPLY TO THE ATTENTION OF SE-5J

VIA FACSIMILE 312 440-0809 AND U.S. MAIL

Mr. Eric Hinds
Golub & Company
625 North Michigan Avenue
Chicago, Illinois 60611-3110

RE: Remaining Radiological Contamination at 345 East Ohio and Ohio, Grand & McClurg, Chicago, Illinois (**Lindsay Light II** /TRS Property/341 East Ohio, Chicago, Illinois)

Dear Mr. Hinds:

On Friday, December 17, 2004, we discussed with you and your consultant, (Larry Bertsch, and John Yang, GaiaTech), remaining radiological contamination in the "wedge" at 345 East Ohio and at Ohio, Grand, and McClurg (OGM)¹. The wedge is the area 5 feet from the sidewalk and is identified as the Radiological Area of Concern (RAC) in your Soil Management Plan dated November 10, 2004.

U.S. EPA agreed that the entire wedge warrants investigation, however, it can be done in stages. The wedge on your immediate development at 345 East Ohio should be investigated first and then filter fabric placed on the OGM portion until it is developed. We did not discuss the wedge investigation in detail, but we would expect it to extend to the depth of natural sand and radiological monitoring of the soil as you remove it with the bucket. We agreed that filter fabric should be installed on the OGM portion since it will help distinguish the wedge from the "clean" spoils removed from 345 East Ohio and placed on the OGM portion, and the additional soil brought in to bring the OGM to grade. In addition, the exact location of the filter fabric should be documented on a map/drawing so when development occurs this knowledge can be utilized. For example, during our meeting you explained that the owner/developer of the site planned to transfer to the City of Chicago approximately 25 feet on the eastern part of OGM to accommodate the expansion of McClurg Court. Therefore, we would expect that prior to the expansion the overburden would be removed and then the material under the filter fabric would be accessible for radiological screening before construction of McClurg Court.

¹341 East Ohio has been divided into two portions: west portion of 341 East Ohio is now called 345 East Ohio and is under development, and the east portion is called OGM and will be developed at later date.

Keep in mind, that given the long-lived nature of thorium contamination, if Golub decides to leave any radiological contamination at the property or does not conduct an investigation capable of identifying any existing contamination, long-term institutional controls to prevent a release to the public or the environment may be necessary.

If you have any questions regarding this correspondence, please contact me at (312) 886-3601 or Larry Jensen, Health Physicist, at (312) 886-5026. Please direct any legal questions to Mary Fulghum, Associate Regional Counsel, at (312) 886-4693 or Cathleen Martwick, Associate Regional Counsel at (312) 886-7166.

Sincerely,

A handwritten signature in cursive script that reads "Verneta Simon".

Verneta Simon
On-Scene Coordinator

cc: Larry Bertsch and John Yang, GaiaTech
200 North LaSalle Street, Suite 2600
Chicago, Illinois 60601
Rhamat Begum, Chicago Department of Environment
Benet Haller, Chicago Department of Planning and Development



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

JAN 12 2005

REPLY TO THE ATTENTION OF SE-5J

VIA FACSIMILE 312 440-0809 AND U.S. MAIL

Mr. Eric Hinds
Golub & Company
625 North Michigan Avenue
Chicago, Illinois 60611-3110

RE: Remaining Radiological Contamination at 345 East Ohio and Ohio, Grand & McClurg,
Chicago, Illinois (Lindsay Light II / TRS Property/341 East Ohio, Chicago, Illinois)

Dear Mr. Hinds:

On Friday, December 17, 2004, we discussed with you and your consultant, (Larry Bertsch, and John Yang, GaiaTech), remaining radiological contamination in the "wedge" at 345 East Ohio and at Ohio, Grand, and McClurg (OGM) ¹. The wedge is the area 5 feet from the sidewalk and is identified as the Radiological Area of Concern (RAC) in your Soil Management Plan dated November 10, 2004.

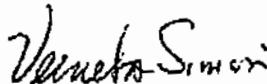
U.S. EPA agreed that the entire wedge warrants investigation, however, it can be done in stages. The wedge on your immediate development at 345 East Ohio should be investigated first and then filter fabric placed on the OGM portion until it is developed. We did not discuss the wedge investigation in detail, but we would expect it to extend to the depth of natural sand and radiological monitoring of the soil as you remove it with the bucket. We agreed that filter fabric should be installed on the OGM portion since it will help distinguish the wedge from the "clean" spoils removed from 345 East Ohio and placed on the OGM portion, and the additional soil brought in to bring the OGM to grade. In addition, the exact location of the filter fabric should be documented on a map/drawing so when development occurs this knowledge can be utilized. For example, during our meeting you explained that the owner/developer of the site planned to transfer to the City of Chicago approximately 25 feet on the eastern part of OGM to accommodate the expansion of McClurg Court. Therefore, we would expect that prior to the expansion the overburden would be removed and then the material under the filter fabric would be accessible for radiological screening before construction of McClurg Court.

¹341 East Ohio has been divided into two portions: west portion of 341 East Ohio is now called 345 East Ohio and is under development, and the east portion is called OGM and will be developed at later date.

Keep in mind, that given the long-lived nature of thorium contamination, if Golub decides to leave any radiological contamination at the property or does not conduct an investigation capable of identifying any existing contamination, long-term institutional controls to prevent a release to the public or the environment may be necessary.

If you have any questions regarding this correspondence, please contact me at (312) 886-3601 or Larry Jensen, Health Physicist, at (312) 886-5026. Please direct any legal questions to Mary Fulghum, Associate Regional Counsel, at (312) 886-4693 or Cathleen Martwick, Associate Regional Counsel at (312) 886-7166.

Sincerely,



Verneta Simon
On-Scene Coordinator

cc: Larry Bertsch and John Yang, GaiaTech
200 North LaSalle Street, Suite 2600
Chicago, Illinois 60601
Rhamat Begum, Chicago Department of Environment
Benet Haller, Chicago Department of Planning and Development



EMERGENCY RESPONSE BRANCH

REGION 5, CHICAGO, ILLINOIS

FAX NUMBER; 312-353-9176

TO: Larry Bertsch/John Yang

FROM: Verneta Simon

DATE: 1/12/05

PHONE NUMBER: (312)541-0340

TOTAL NUMBER OF PAGES (INCLUDING COVER) 3

COMMENTS: 345 G Ohio/ OGM

Appendix C

City of Chicago Permits



**CITY OF CHICAGO DEPARTMENT OF ENVIRONMENT
FORM NO. DOE.ROW.01**

City of Chicago
Richard M. Daley, Mayor

Department of Environment

Twenty-fifth Floor
30 North LaSalle Street
Chicago, Illinois 60602-2575
(312) 744-7606 (Voice)
(312) 744-6451 (FAX)
(312) 744-3386 (TTY)

<http://www.cityofchicago.org>

FOUNDATION

Permit No. 20419052

Date 8-5-2004

Site Address 345 E. Ohio Street

Work Location (describe exact site location)

345 E. Ohio Street
Row

Nature of Work

Construction of New Building

Notice is hereby given that the site you have requested information on is recorded with the City of Chicago Department of Environment as potentially having environmental contamination on the site and adjacent right-of-way. This environmental contamination could present a threat to human health and safety in connection with work performed at the site, or in the adjacent right-of-way, if proper safeguards are not employed.

A file containing detailed information regarding the aforementioned environmental contamination is available for review at the Department of Environment at 30 N. LaSalle St., 25th Floor, Chicago, Illinois 60602 during normal business hours (8:30 AM - 4:30 PM, Monday through Friday). Contact Rhamat Begum at (312) 744-3152 for an appointment. This file must be reviewed and the remainder of this form completed before the permit can be issued. Please note that for some locations, additional health and safety procedures may be required by law.

Please complete the following:

I have reviewed and understand the documents, maintained by the Department of Environment, regarding environmental contamination of the site and adjacent right-of-way. Further, I will ensure that all work at the subject site and adjacent right-of-way, and any monitoring required including but not limited to radiation monitoring, will be performed in a manner that is protective of human health and the environment and in compliance with all applicable local, state, and federal laws, rules, and regulations, especially those pertaining to worker safety and waste management. I will ensure that the results of any radiation monitoring and/or surveying conducted shall be provided to the Department of Environment within two (2) weeks of their completion. If any elevated levels of radioactive material are detected, I will immediately contact the United States Environmental Protection Agency at (800) 424-8802.

Signature [Signature]

Name (print) LEE GOLUB

Company GOLUB O&A INVESTORS, LLC c/o GOLUB & COMPANY

Address 625 N MICHIGAN AVENUE, STE 2000

Phone No. 312-440-8800

Prime Contractor/Contact WALSH CONSTRUCTION / RORY FINNEN

Address 929 W ADAMS STREET

Phone 312-907-1537

Safety Officer/Phone Steve Kline 312-541-4200 x226 (Gaiatch)

Radiation Contractor/

Phone (if applicable) STS/Stephen Torres, 847-279-2474

Signed by Department of Environment Rhamatunisa Begum

Date 11/22/04

Please return this completed form to the City of Chicago Department of Transportation at 30 N. LaSalle St., Room 1101, Chicago, Illinois 60602 during normal business hours (8:30 AM - 4:30 PM, Monday through Friday).



Revised Mar. 13, 2002





Department of Construction and Permits BUILDING PERMIT



Permit No. 1047531

Issued 11/29/2004

For Work at: 345-345 E OHIO ST

Description of permitted work:

NEW 49 STORY PARKING AND RESIDENTIAL FACILITY - FOUNDATION ONLY.

In an Emergency Contact: LEE GOLUB (312) 440-8701

Owner:
GOLUB OGM INVESTORS, LLC
625 N MICHIGAN AVE
CHICAGO, IL 60611
(312) 440-8800

Contractor:
WALSH CONSTRUCTION COMPANY
929 W ADAMS ST
CHICAGO, IL 60607
(312) 563-5400

Richard M. Daley
Mayor



Rafael Hernandez

Rafael Hernandez
Executive Director



Original Permit must be displayed on job site at all times; Copies NOT allowed! Plans must be kept on site during construction. Permit is NOT transferable. Any changes in contractor or deviation from approved plans must be approved by the Department of Construction and Permits. Permit may be revoked for violation of any of the above provisions or other applicable ordinance.

A Certificate of Occupancy may be required before occupancy. Call (312) 744-2529 for more information.

THIS DOCUMENT HAS BLACK PRINTING OVER A BLUE AND PINK RAINBOW BACKGROUND ON WHITE PAPER.



Richard M. Daley, Mayor
Miguel d'Escoto, Commissioner

CITY OF CHICAGO
Department of Transportation
121 N. La Salle Street, Room 905
Chicago, IL 60602
Tel: 312-744-4652 Fax: 312-744-4627
Counter Fax: 312-744-6789

OK MMS
CDOT
MOVING barrier

APPLICATION FOR A PERMIT TO OCCUPY THE PUBLIC RIGHT-OF-WAY

Date Submitted: 1/1/05 Permit #:

Applicant Information:

Permit issued to: Thermal Remediation Inc. FEIN: 36-4148657

Address: 956 S. Bartlett Rd. #250

City: Bartlett State: IL Zip code: 60103 Telephone: 630 830 9323

Job Representative or Applicant: John Sweeney - TRT, Larry Berisch, Garatich
312-541-4200, ext. 270

Building Owner: Golub & Company Telephone: 312 440 8768
625 N. Michigan, Chicago, IL 60611

Permit requested for the period of: 12/14/04 to 12/23/04

Address or route: 345 E. Ohio Street, Chicago IL 60611

344 E. Grand Ave., Chicago IL 60611

Activity Type: ☒ Public Place Obstruction (Daily or Annual) - excavation adjacent to
☐ Type I (Alteration, repair facade, demolition) Public way - partial side walk
☐ Type II (New Construction) closure
☐ Type III (Maintenance, painting, cleaning)

Application for (please check all that apply):

☐ **BARRICADE:** ☒ Partial Closure ☐ Full Closure ☐ **CANOPY:** ☐ Heavy ☐ Light ☐ Rolling

Location	Footage	Start Date	End Date
Sidewalk <input type="checkbox"/> Barricade <u>50</u> 30 ft <input type="checkbox"/> Canopy <u> </u> ft		<u>12/14/04</u>	<u>12/23/04</u>
Parkway <input type="checkbox"/> Barricade <u> </u> ft <input type="checkbox"/> Canopy <u> </u> ft			<u>1/5/05</u>
Curb Lane <input type="checkbox"/> Barricade <u> </u> ft <input type="checkbox"/> Canopy <u> </u> ft			
Alley <input type="checkbox"/> Barricade <u> </u> ft <input type="checkbox"/> Canopy <u> </u> ft			
Traffic <input type="checkbox"/> Barricade <u> </u> ft <input type="checkbox"/> Canopy <u> </u> ft			
Bike Lane <input type="checkbox"/> Barricade <u> </u> ft <input type="checkbox"/> Canopy <u> </u> ft			

☐ **DRIVEWAY-TEMPORARY:**

What is the duration of the driveway opening?

What is the width of the driveway? (ft.) Number of driveways:



Richard M. Daley, Mayor
Miguel d'Escoto, Commissioner

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Department of Transportation
121 N. La Salle Street, Room 905
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OK MMS
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City: Bartlett State: IL Zip code: 60103 Telephone: 630 830 9323

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312-541-4200, ext. 270

Building Owner: Golub & Company Telephone: 312 440 8768
625 N. Michigan, Chicago, IL 60611

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Address or route: 345 E. Ohio Street, Chicago IL 60611

344 E. Grand Ave., Chicago IL 60611

Activity Type: ☒ Public Place Obstruction (Daily or Annual) - excavator adjacent to
☐ Type I (Alteration, repair facade, demolition) Public way - partial side walk
☐ Type II (New Construction) closure
☐ Type III (Maintenance, painting, cleaning)

Application for (please check all that apply):

☐ BARRICADE: ☒ Partial Closure ☐ Full Closure ☐ CANOPY: ☐ Heavy ☐ Light ☐ Rolling

Location	Footage	Start Date	End Date
Sidewalk	<input type="checkbox"/> Barricade <u>50</u> ft <input type="checkbox"/> Canopy _____ ft	<u>12/14/04</u>	<u>12/23/04</u>
Parkway	<input type="checkbox"/> Barricade _____ ft <input type="checkbox"/> Canopy _____ ft		<u>1/5/05</u>
Curb Lane	<input type="checkbox"/> Barricade _____ ft <input type="checkbox"/> Canopy _____ ft		
Alley	<input type="checkbox"/> Barricade _____ ft <input type="checkbox"/> Canopy _____ ft		
Traffic	<input type="checkbox"/> Barricade _____ ft <input type="checkbox"/> Canopy _____ ft		
Bike Lane	<input type="checkbox"/> Barricade _____ ft <input type="checkbox"/> Canopy _____ ft		

DRIVEWAY-TEMPORARY:

What is the duration of the driveway opening? _____

What is the width of the driveway? _____ (ft.) Number of driveways: _____

Permit # 502478109



Received Date: Jan 24, 2005 12:57:46

WALSH CONSTRUCTION CO

929 WEST ADAMS

CHICAGO, IL 60607

MARK KRYHOWSKI 312-563-5400

**City of Chicago
Department of Transportation
(312) 744-4652**

ACTIVITY HOURS

Permitted activity hours begin at 9:30AM. Permitted activity hours will end at 4:00PM. ANY WORK ON ARTERIAL STREETS MUST ADHERE TO ALL RUSH HOUR RESTRICTIONS. 340 - 340 E GRAND AV Sidewalk Opening

Permitted activity hours begin at 9:30AM. Permitted activity hours will end at 4:00PM. ANY WORK ON ARTERIAL STREETS MUST ADHERE TO ALL RUSH HOUR RESTRICTIONS. 340 - 340 E GRAND AV Street Opening (Curb Lane & Traffic Lane)

DATES

Jan 24, 2005 through Feb 11, 2005

ACTIVITIES

Sidewalk Opening:

Dig #: 502420590

A sidewalk opening is being made to SOIL REMEDIATION. There are 1 location(s) that will affect 50 sidewalk slab(s).

The opening is 200 ft X 7 ft.

340 E GRAND AV

PERMIT RELEASE OK'D PER R BEGUM,(M SIMON)
AUGUST 5,2004.

Street Opening (Curb Lane & Traffic Lane):

Dig #: 502420615

Restrictions:

1. Maintain a minimum of feet for pedestrian traffic.
2. A copy of the permit must remain on-site for inspector's review.
3. Pedestrian walkway must be kept free of all obstructions and debris.
4. Adequate provisions must be made to prohibit the falling of any debris or materials and to provide overhead cover.
5. Sight clearance of all traffic signals and regulatory signs must be maintained at all times.
6. Maintain fire hydrant and manhole access.
7. Crosswalk obstruction prohibited.
8. Barricades and detour signs provided by permittee.
9. Must remain free of advertisements and graffiti.
10. "NO PARKING SIGN POSTING" requests must be entered on the permit if needed to perform the work. If a Service Request control number is listed on the permit and no signs were posted, call 312-747-5085. All other changes or request for re-posting must be referred to Construction Compliance.
11. Permit fees must be paid within 24 hours of the date of issuance. Failure to pay will result in the immediate cancellation of the permit. Monthly billing accounts are not applicable.

ACTIVITY	TRANSACTION	AMOUNT	CAPS
Barricade/Walkway - Const (Sidewalk or Parkway)	Fee for Activity	\$ 800.00	100-84-2030-2590
Barricade/Walkway - Const (Sidewalk or Parkway)	Fee for Activity	\$ 800.00	100-84-2030-2590
Barricade/Walkway - Const (Curb Lane)	Fee for Activity	\$ 2,000.00	100-84-2030-2590
Barricade/Walkway - Const (Curb Lane)	Fee for Activity	\$ 2,000.00	100-84-2030-2590
Total Fees:		\$ 5,600.00	

Restrictions:

17. Restore all lanes to normal operation during non-working hours.
18. Must use flagmen and/or arrow boards to maintain traffic operations through the work zone.
19. Permanent base pavement restoration to follow within 5 days after the completion of underground work.
20. All street openings must be restored with concrete base to grade.
21. Work to be performed as per plans and specifications.
22. Streets recently resurfaced must be restored to proper standards (resurface to nearest 1/4 pt, see CDOT Construction Standards for further details).

ACTIVITY	TRANSACTION	AMOUNT	CAPS
Street Opening (Curb Lane & Traffic Lane)	Fee Pavement Opening	\$ 195.00	300-84-2030-2561
Sidewalk Opening	Fee Pavement Opening	\$ 195.00	300-84-2030-2562
Total Fees:		\$ 390.00	
Grand Total Fees:		\$ 390.00	

Affected CUAN Sites: 7, 15, 18, 21, 22, 24, 29, 31, 34, 38, 53, 83, 109, 111, 141, 147

EFFECTIVE DATES OF PERMIT

Current: Jan 24, 2005 through Feb 11, 2005 (Input date: Jan 24, 2005 12:57:47 p.m.)

END OF PERMIT

Permit # 502478161

Received Date: Jan 24, 2005 1:5:17

**WALSH CONSTRUCTION CO
929 WEST ADAMS
CHICAGO, IL 60607**



**City of Chicago
Department of Transportation
(312) 744-4652**

MARK KRYGOWSKI 312-222-1471

ACTIVITY HOURS

See **RESTRICTIONS** for permitted hours

DATES

Jan 24, 2005 through Feb 11, 2005

ACTIVITIES

Barricade/Walkway - Const (Sidewalk or Parkway):

Placement of a 200 foot barricade for New Construction. The barricade will cause a Total Closure on the parkway or sidewalk.

NA Will be stored in the barricaded work site.

340 E GRAND AV

**CLOSE SIDEWALK AND REDIRECT PEDESTRIANS TO CURB LANE.
OK PER MDS.**

Barricade/Walkway - Const (Curb Lane):

Placement of a 200 foot barricade for New Construction.

NA Will be stored in the barricaded work site.

340 - 340 E GRAND AV

Restrictions:

Street Opening (Curb Lane & Traffic Lane):**Dig #: 502420615**

There will be 1 opening(s) in the public way for the purpose: REMEDIATION
TESTING. 40 Feet x 5 Feet

340 E GRAND AV

NO ASPHALT FEES .
PERIMETER PAVING AGREEMENT.

Restrictions:

1. Permitted Hours: 9:30 AM to 4:00PM.
2. All directional boring must be pre-approved by the Office of Underground Coordination.
3. Contractor must secure plating over all openings in the roadway during non-working hours until such time when the road surface is restored.
4. Use of pneumatic equipment must not begin before 8 A.M. or continue after 9 P.M.
5. Contractor must notify DIGGER at 312-744-7000 no less then 48 hours (exclusive of Saturdays, Sundays and Holidays) but no more then 14 calendar days in advance of the start of the excavation or demolition, unless the excavation date was provided with the application and remains unchanged. Prior to 26 calendar days the Contractor must notify DIGGER to renewal the dig date!
6. It is the Excavator's responsibility to request refreshing of marks when needed, but no longer than 28 calendar days after the last requested date.
7. When applicable, all excavation areas are to be clearly marked in safety white paint prior to calling DIGGER. White paint is not required for joint meets or emergency work.
8. Excavators requesting dig tickets are responsible for the protection of utility markings at the job site. Any markings of underground utilities utilizing utility colors, must be done by facility owners or authorized agents only.
9. Permittee must provide a sign which identifies the telephone number and company or person performing the work. Signage may be affixed to barricades.
10. Maintain pedestrian traffic at all times.
11. A copy of the permit must remain on-site for inspector's review.
12. Restoration to follow immediately upon completion of underground work. Weather permitting. (If excavating)
13. All pavements are to be restored in accordance with CDOT Construction Standards.
14. WARNING: THIS WORKSITE(S) CONTAINS RADIOACTIVE MATERIAL. ANY QUESTIONS PERTAINING TO HANDLING OF MATERIALS, CONTACT THE DEPT. OF ENVIRONMENT AT 312-744-3152.
15. Permit fees must be paid within 24 hours of the date of issuance. Failure to pay will result in the immediate cancellation of the permit. Monthly billing accounts are not applicable.
16. All traffic control will be the responsibility of the contractor and must comply with all MUTCD standards.

Grand Total Fees: \$ 5,600.00

EFFECTIVE DATES OF PERMIT

Current: Jan 24, 2005 through Feb 11, 2005 (Input date: Jan 24, 2005 1:05:18 p.m.)

END OF PERMIT

Permit # 502068693

Received Date: Jan 20, 2005 9:46:40

GOLUB OGM INVESTORS LLC
625 N. MICHIGAN AV.
CHICAGO, IL 60611

ERIC HINDS 312-440-8800



City of Chicago
Department of Transportation
(312) 744-4652

ACTIVITY HOURS

See **RESTRICTIONS** for permitted hours

DATES

Jan 24, 2005 through Feb 11, 2005

ACTIVITIES

Parking Meter - Removed:

4 Parking meter(s) are to be removed. The following parking meters will be removed for 1 month(s): 212.

The Department of Revenue has been provided the following special instructions:
NONE.

The corresponding Service Request number is 05-00098703.

340 E GRAND AV

PARKING METERS TO BE REMOVE ARE 212037, 212038, 212039
212040.

Parking Meter/Pay Box Lost Revenue Surcharge:

340 - 340 E GRAND AV

Parking Restriction Posting/Meter Bagging:

A Parking Restriction Sign Posting is required for NEW CONSTRUCTION. Special Instructions are POSTING IS DONE UNDER PREVIOUS PERMIT.

The corresponding Service Request number is 05-00098704.

340 - 340 E GRAND AV

Restrictions:

1. Work estimated to be completed FEB 11TH, 2005
2. All removal and replacements of parking meters must be performed by City of Chicago forces.
3. Contractor is to notify this office upon request for replacement of meters.
4. A copy of the permit must remain on-site for inspector's review.
5. Permit fees must be paid within 24 hours of the date of issuance. Failure to pay will result in the immediate cancellation of the permit. Monthly billing accounts are not applicable.
6. "NO PARKING SIGN POSTING" requests must be entered on the permit if needed to perform the work. If a Service Request control number is listed on the permit and no signs were posted, call 312-747-5085. All other changes or request for re-posting must be referred to Construction Compliance.
7. All signs must be removed by the contractor when job is complete.
8. Applicant must contact Construction Compliance for any changes that affect the date(s), time(s) or location(s) for Meter Bagging and/or Parking Restriction Sign Posting.
9. Any questions regarding the actual placement of signs or meter bagging, contact the Bureau of Traffic Services at (312) 747-5085.

ACTIVITY	TRANSACTION	AMOUNT	CAPS
Parking Meter - Removed	Fee for Activity	\$ 600.00	100-29-3157-4301
Parking Meter/Pay Box Lost Revenue Surcharge	Surcharge for lost revenue from parking meters	\$ 490.08	100-29-3157-4902

Total Fees: \$ 1,090.08

Grand Total Fees: \$ 1,090.08

EFFECTIVE DATES OF PERMIT

Current: Jan 24, 2005 through Feb 11, 2005 (Input date: Jan 20, 2005 9:46:40 a.m.)

END OF PERMIT

City of Chicago

Department of Revenue

121 N. LaSalle Rm802

103 01/24/05 12:49 Batch 07280 WalkIn n
ch-rm80202

CDOT Permit	
5119921953	\$1,090.08
Permit # 502068693	
CDOT Permit	
5119922456	\$300.00
Permit # 502068782	
Business Check	\$1,390.08
Total Amount Paid	\$1,390.08

Thank you

Permit # 502068782

Received Date: Jan 20, 2005 10:0:18

GOLUB OGM INVESTORS LLC
625 N. MICHIGAN AV.
CHICAGO, IL 60611

ERIC HINDS 312-440-8800



City of Chicago
Department of Transportation
(312) 744-4652

ACTIVITY HOURS

See RESTRICTIONS for permitted hours

DATES

Jan 24, 2005 through Feb 14, 2005

ACTIVITIES

Sign Removal:

The Bureau of Signs and Markings will remove 2 sign(s) by JAN 24, 2005.

The sign(s) to be removed are: NO PARKING SIGNS.

The corresponding Service Request number is 05-00098773.

340 - 340 E GRAND AV

Restrictions:

1. Work estimated to be completed FEB 14TH, 2005
2. All removal and replacements of signs must be performed by City of Chicago forces.
3. Contractor is to notify this office upon request for replacement of signs.
4. A copy of the permit must remain on-site for inspector's review.
5. Permit fees must be paid within 24 hours of the date of issuance. Failure to pay will result in the immediate cancellation of the permit. Monthly billing accounts are not applicable.

ACTIVITY	TRANSACTION	AMOUNT	CAPS
Sign Removal	Fee for Activity	\$ 300.00	100-84-2030-4901

Total Fees: \$ 300.00

Grand Total Fees: \$ 300.00

EFFECTIVE DATES OF PERMIT

Current: Jan 24, 2005 through Feb 14, 2005 (Input date: Jan 20, 2005 10:00:18 a.m.)

END OF PERMIT

Permit # 436562448

Received Date: Dec 30, 2004 9:18:25

**WALSH CONSTRUCTION CO
929 WEST ADAMS
CHICAGO, IL 60607**



**City of Chicago
Department of Transportation
(312) 744-4652**

M SHEERAN 312-563-5400

ACTIVITY HOURS

See RESTRICTIONS for permitted hours

DATES

Jan 3, 2005 through Feb 1, 2005

ACTIVITIES

Barricade/Walkway - Const (Sidewalk or Parkway):

Placement of a 210 foot barricade for New Construction. The barricade will cause a Total Closure on the parkway or sidewalk.

NA Will be stored in the barricaded work site.

345 E OHIO ST

BLDG PERMIT # 2004-1047531.

OK PER MDS.

Barricade/Walkway - Const (Curb Lane):

Placement of a 210 foot barricade for New Construction.

NA Will be stored in the barricaded work site.

345 - 345 E OHIO ST

Temporary Driveway:

Temporary Driveway:

4 Driveway(s) with a total size of 25 Ft. will be open 1 Month(s).

345 E OHIO ST

PERMITTEE TO PLACE:

2 TEMP DRIVEWAYS ON OHIO

2 TEMP DRIVEWAYS ON GRAND

344 - 344 E GRAND AV

Restrictions:

1. Maintain a minimum of 0 feet for pedestrian traffic.
2. A copy of the permit must remain on-site for inspector's review.
3. Pedestrian walkway must be kept free of all obstructions and debris.
4. Adequate provisions must be made to prohibit the falling of any debris or materials and to provide overhead cover.
5. Sight clearance of all traffic signals and regulatory signs must be maintained at all times.
6. Maintain fire hydrant and manhole access.
7. Crosswalk obstruction prohibited.
8. Barricades and detour signs provided by permittee.
9. Must remain free of advertisements and graffiti.
10. "NO PARKING SIGN POSTING" requests must be entered on the permit if needed to perform the work. If a Service Request control number is listed on the permit and no signs were posted, call 312-747-5085. All other changes or request for re-posting must be referred to Construction Compliance.
11. Permit fees must be paid within 24 hours of the date of issuance. Failure to pay will result in the immediate cancellation of the permit. Monthly billing accounts are not applicable.
12. Protective decking must be provided to protect curb and sidewalk surface.
13. Temporary driveway must be planked with 2X10's and sheated with plywood.

ACTIVITY	TRANSACTION	AMOUNT	CAPS
Temporary Driveway	Fee for Activity	\$ 400.00	100-84-2030-2519
Barricade/Walkway - Const (Sidewalk or Parkway)	Fee for Activity	\$ 840.00	100-84-2030-2590
Barricade/Walkway - Const (Sidewalk or Parkway)	Fee for Activity	\$ 840.00	100-84-2030-2590
Barricade/Walkway - Const (Curb Lane)	Fee for Activity	\$ 2,100.00	100-84-2030-2590
Barricade/Walkway - Const (Curb Lane)	Fee for Activity	\$ 2,100.00	100-84-2030-2590

Total Fees: \$ 6,280.00

Grand Total Fees: \$ 6,280.00

EFFECTIVE DATES OF PERMIT

Current: Jan 03, 2005 through Feb 01, 2005 (Input date: Dec 30, 2004 9:19:13 a.m.)
Previous: Jan 03, 2005 through Feb 02, 2005 (Input date: Dec 30, 2004 9:18:24 a.m.)

END OF PERMIT



City of Chicago

Recycled Paper

Rafael Maciel
Senior Environmental Inspector

Department of Environment
Permitting and Enforcement
Suite 2500
30 North LaSalle Street
Chicago, Illinois 60602

312 744-7237

312 744-5272 (FAX)
312 744-3586 (TTY)
312 689-7082 (Pager)
rmaciel@cityofchicago.org

Permit # 500787645

Received Date: Jan 7, 2005 1:13:58

**WALSH CONSTRUCTION CO
929 WEST ADAMS
CHICAGO, IL 60607**



**City of Chicago
Department of Transportation
(312) 744-4652**

M. SHEERAN 312-563-5400

ACTIVITY HOURS

Permitted activity hours begin at 9:30 A.M. Permitted activity hours will end at 4:00 P.M. ANY WORK ON ARTERIAL STREETS MUST ADHERE TO ALL RUSH HOUR RESTRICTIONS. 345-345 E OHIO ST Street Opening (Curb Lane & Traffic Lane)

DATES

Jan 12, 2005 through Jan 26, 2005

ACTIVITIES

Street Opening (Curb Lane & Traffic Lane):

Dig #: TBD

There will be 2 opening(s) in the public way for the purpose: REMEDIATION - TESTING. 5 Feet x 25 Feet

345 - 345 E OHIO ST

Street Opening (Curb Lane & Traffic Lane):

Dig #: TBD

There will be 2 opening(s) in the public way for the purpose: REMEDIATION - TESTING. 5 Feet x 35 Feet

345 - 345 E OHIO ST

Street Opening (Curb Lane & Traffic Lane):

Dig #: TBD

There will be 1 opening(s) in the public way for the purpose: REMEDIATION -

Street Opening (Curb Lane & Traffic Lane):

Dig #: TBD

TESTING. 5 Feet x 5 Feet

345 - 345 E OHIO ST

Street Opening (Curb Lane & Traffic Lane):

Dig #: TBD

There will be 1 opening(s) in the public way for the purpose: REMEDIATION -
TESTING. 5 Feet x 30 Feet

345 - 345 E OHIO ST

Street Opening (Curb Lane & Traffic Lane):

Dig #: TBD

There will be 1 opening(s) in the public way for the purpose: REMEDIATION -
TESTING. 5 Feet x 27 Feet

345 - 345 E OHIO ST

Restrictions:

1. Permitted Hours: 9:30 AM to 4:00 PM (days)
2. All directional boring must be pre-approved by the Office of Underground Coordination.
3. Contractor must secure plating over all openings in the roadway during non-working hours until such time when the road surface is restored.
4. All traffic control will be the responsibility of the contractor and must comply with all MUTCD standards.
5. Restore all lanes to normal operation during non-working hours.
6. Must use flagmen and/or arrow boards to maintain traffic operations through the work zone.
7. Contractor must notify DIGGER at 312-744-7000 no less than 48 hours (exclusive of Saturdays, Sundays and Holidays) but no more than 14 calendar days in advance of the start of the excavation or demolition, unless the excavation date was provided with the application and remains unchanged. Prior to 26 calendar days the Contractor must notify DIGGER to renew the dig date!
8. It is the Excavator's responsibility to request refreshing of marks when needed, but no longer than 28 calendar days after the last requested date.
9. When applicable, all excavation areas are to be clearly marked in safety white paint prior to calling DIGGER. White paint is not required for joint meets or emergency work.
10. Excavators requesting dig tickets are responsible for the protection of utility markings at the job

Restrictions:

site. Any markings of underground utilities utilizing utility colors, must be done by facility owners or authorized agents only.

11. Use of pneumatic equipment must not begin before 8 A.M. or continue after 9 P.M.
12. Permittee must provide a sign which identifies the telephone number and company or person performing the work. Signage may be affixed to barricades.
13. A copy of the permit must remain on-site for inspector's review.
14. Permanent base pavement restoration to follow within 5 days after the completion of underground work.
15. All pavements are to be restored in accordance with CDOT Construction Standards.
16. Work to be performed as per plans and specifications.
17. Streets recently resurfaced must be restored to proper standards (resurface to nearest 1/4 pt, see CDOT Construction Standards for further details).
18. Permit fees must be paid within 24 hours of the date of issuance. Failure to pay will result in the immediate cancellation of the permit. Monthly billing accounts are not applicable.

ACTIVITY	TRANSACTION	AMOUNT	CAPS
Street Opening (Curb Lane & Traffic Lane)	Fee Pavement Opening	\$ 390.00	300-84-2030-2561
Street Opening (Curb Lane & Traffic Lane)	Fee Pavement Opening	\$ 390.00	300-84-2030-2561
Street Opening (Curb Lane & Traffic Lane)	Fee Pavement Opening	\$ 195.00	300-84-2030-2561
Street Opening (Curb Lane & Traffic Lane)	Fee Pavement Opening	\$ 195.00	300-84-2030-2561
Street Opening (Curb Lane & Traffic Lane)	Fee Pavement Opening	\$ 195.00	300-84-2030-2561
Total Fees:		\$ 1,365.00	
Grand Total Fees:		\$ 1,365.00	

EFFECTIVE DATES OF PERMIT

Current: Jan 12, 2005 through Jan 26, 2005 (Input date: Jan 07, 2005 1:13:58 p.m.)

END OF PERMIT

City of Chicago
Department of Revenue
121 N. LaSalle Rm802

85 01/10/05 14:45 Batch 14382 WalkIn n
ch-rm80202

CDOT Permit	
5118389152	\$1,365.00
Permit # 500787645	
Business Check	\$1,365.00
Total Amount Paid	\$1,365.00

Thank you

Permit # 500580077

Received Date: Jan 5, 2005 3:29:23

**WALSH CONSTRUCTION CO
929 WEST ADAMS
CHICAGO, IL 60607**



**City of Chicago
Department of Transportation
(312) 744-4652**

MICHAEL SHERMAN 312-563-5400

ACTIVITY HOURS

Permitted activity hours begin at 800AM. Permitted activity hours will end at 9:00PM. ANY WORK ON ARTERIAL STREETS MUST ADHERE TO ALL RUSH HOUR RESTRICTIONS. 345 - 345 E OHIO ST Sidewalk Opening

DATES

Jan 5, 2005 through Feb 3, 2005

ACTIVITIES

Sidewalk Opening:

Dig #: 500531391

A sidewalk opening is being made to SOIL REMEDIATION. There are 1 location(s) that will affect 50 sidewalk slab(s).

The opening is 210 ft X 12 ft.

345 E OHIO ST

PERMIT RELEASE OK'D PER R BEGUM,AUGUST 5,2004.
OK PER MDS.

Restrictions:

1. Permitted Hours: 8:00AM TO 9:00PM.
2. All directional boring must be pre-approved by the Office of Underground Coordination.
3. Contractor must secure plating over all openings in the roadway during non-working hours until such time when the road surface is restored.

EFFECTIVE DATES OF PERMIT

Current: Jan 05, 2005 through Feb 03, 2005 (Input date: Jan 05, 2005 3:29:23 p.m.)

END OF PERMIT

Permit # 436562448

AMENDED



Received Date: Dec 30, 2004 9:18:25

WALSH CONSTRUCTION CO

929 WEST ADAMS

CHICAGO, IL 60607

M SHEERAN 312-563-5400

**City of Chicago
Department of Transportation
(312) 744-4652**

ACTIVITY HOURS

See RESTRICTIONS for permitted hours

DATES

Jan 3, 2005 through Apr 1, 2005

ACTIVITIES

Barricade/Walkway - Const (Sidewalk or Parkway):

Placement of a 210 foot barricade for New Construction. The barricade will cause a Total Closure on the parkway or sidewalk.

NA Will be stored in the barricaded work site.

345 E OHIO ST

BLDG PERMIT # 2004-1047531.
OK PER MDS.

AMENDED PERMIT THRU APRIL 1,2005.
OK PER MDS.

Barricade/Walkway - Const (Curb Lane):

Placement of a 210 foot barricade for New Construction.

NA Will be stored in the barricaded work site.

Barricade/Walkway - Const (Curb Lane):

345 - 345 E OHIO ST

Temporary Driveway:

4 Driveway(s) with a total size of 25 Ft. will be open 3 Month(s).

345 E OHIO ST

PERMITTEE TO PLACE:

2 TEMP DRIVEWAYS ON OHIO

2 TEMP DRIVEWAYS ON GRAND

344 - 344 E GRAND AV

Restrictions:

1. Maintain a minimum of 0 feet for pedestrian traffic.
2. A copy of the permit must remain on-site for inspector's review.
3. Pedestrian walkway must be kept free of all obstructions and debris.
4. Adequate provisions must be made to prohibit the falling of any debris or materials and to provide overhead cover.
5. Sight clearance of all traffic signals and regulatory signs must be maintained at all times.
6. Maintain fire hydrant and manhole access.
7. Crosswalk obstruction prohibited.
8. Barricades and detour signs provided by permittee.
9. Must remain free of advertisements and graffiti.
10. "NO PARKING SIGN POSTING" requests must be entered on the permit if needed to perform the work. If a Service Request control number is listed on the permit and no signs were posted, call 312-747-5085. All other changes or request for re-posting must be referred to Construction Compliance.
11. Permit fees must be paid within 24 hours of the date of issuance. Failure to pay will result in the immediate cancellation of the permit. Monthly billing accounts are not applicable.
12. Protective decking must be provided to protect curb and sidewalk surface.
13. Temporary driveway must be planked with 2X10's and sheated with plywood.

ACTIVITY	TRANSACTION	AMOUNT	CAPS
Temporary Driveway	Fee for Activity	\$ 400.00	100-84-2030-2519
Barricade/Walkway - Const (Sidewalk or Parkway)	Fee for Activity	\$ 840.00	100-84-2030-2590
Barricade/Walkway - Const (Sidewalk or Parkway)	Fee for Activity	\$ 840.00	100-84-2030-2590
Barricade/Walkway - Const (Curb Lane)	Fee for Activity	\$ 2,100.00	100-84-2030-2590
Barricade/Walkway - Const (Curb Lane)	Fee for Activity	\$ 2,100.00	100-84-2030-2590

Total Fees: \$ 6,280.00

Adjustments since last print:

ACTIVITY	TRANSACTION	AMOUNT	CAPS
Temporary Driveway	Fee Change for Activity	\$ 800.00	100-84-2030-2519
Barricade/Walkway - Const (Curb Lane)	Fee for Activity	\$ 8,400.00	100-84-2030-2590
Barricade/Walkway - Const (Sidewalk or Parkway)	Fee for Activity	\$ 3,360.00	100-84-2030-2590

Total Fees : \$ 12,560.00

Grand Total Fees: \$ 18,840.00

EFFECTIVE DATES OF PERMIT

Current: Jan 03, 2005 through Apr 01, 2005 (Input date: Jan 19,
Previous: Jan 03, 2005 through Feb 01, 2005 (Input date: Dec 31
Previous: Jan 03, 2005 through Feb 02, 2005 (Input date: Dec 31

City of Chicago
Department of Revenue
121 N. LaSalle Rm802

END OF PERMIT

104 01/24/05 12:50 Batch 07280 WalkIn n
ch-rm80202

CDOT Permit
5115134746 \$12,560.00
Permit # 436562448
Business Check \$12,560.00
Total Amount Paid \$12,560.00

WALSH CONSTRUCTION CO

Permit # 436562448

5115134746

Thank you

Permit # 500787645

AMENDED



Received Date: Jan 7, 2005 1:13:58

**WALSH CONSTRUCTION CO
929 WEST ADAMS
CHICAGO, IL 60607**

**City of Chicago
Department of Transportation
(312) 744-4652**

M. SHEERAN 312-563-5400

ACTIVITY HOURS

Permitted activity hours begin at 9:30 A.M. Permitted activity hours will end at 4:00 P.M. ANY WORK ON ARTERIAL STREETS MUST ADHERE TO ALL RUSH HOUR RESTRICTIONS. 345-345 E OHIO ST Street Opening (Curb Lane & Traffic Lane)

DATES

Jan 12, 2005 through Jan 31, 2005

ACTIVITIES

Street Opening (Curb Lane & Traffic Lane):

Dig #: 501038699

There will be 2 opening(s) in the public way for the purpose: REMEDIATION - TESTING. 5 Feet x 25 Feet

345 - 345 E OHIO ST

Street Opening (Curb Lane & Traffic Lane):

Dig #: 501038714

There will be 2 opening(s) in the public way for the purpose: REMEDIATION - TESTING. 5 Feet x 35 Feet

345 - 345 E OHIO ST

Street Opening (Curb Lane & Traffic Lane):

Dig #: 501038726

There will be 1 opening(s) in the public way for the purpose: REMEDIATION -

Street Opening (Curb Lane & Traffic Lane):**Dig #: 501038726**

TESTING. 5 Feet x 5 Feet

345 - 345 E OHIO ST

Street Opening (Curb Lane & Traffic Lane):**Dig #: 501038738**

There will be 1 opening(s) in the public way for the purpose: REMEDIATION -
TESTING. 5 Feet x 30 Feet

345 - 345 E OHIO ST

Street Opening (Curb Lane & Traffic Lane):**Dig #: 501038740**

There will be 1 opening(s) in the public way for the purpose: REMEDIATION -
TESTING. 5 Feet x 27 Feet

345 - 345 E OHIO ST

Restrictions:

1. Permitted Hours: 9:30 AM to 4:00 PM (days)
2. All directional boring must be pre-approved by the Office of Underground Coordination.
3. Contractor must secure plating over all openings in the roadway during non-working hours until such time when the road surface is restored.
4. All traffic control will be the responsibility of the contractor and must comply with all MUTCD standards.
5. Restore all lanes to normal operation during non-working hours.
6. Must use flagmen and/or arrow boards to maintain traffic operations through the work zone.
7. Contractor must notify DIGGER at 312-744-7000 no less than 48 hours (exclusive of Saturdays, Sundays and Holidays) but no more than 14 calendar days in advance of the start of the excavation or demolition, unless the excavation date was provided with the application and remains unchanged. Prior to 26 calendar days the Contractor must notify DIGGER to renew the dig date!
8. It is the Excavator's responsibility to request refreshing of marks when needed, but no longer than 28 calendar days after the last requested date.
9. When applicable, all excavation areas are to be clearly marked in safety white paint prior to calling DIGGER. White paint is not required for joint meets or emergency work.
10. Excavators requesting dig tickets are responsible for the protection of utility markings at the job

Restrictions:

- site. Any markings of underground utilities utilizing utility colors, must be done by facility owners or authorized agents only.
11. Use of pneumatic equipment must not begin before 8 A.M. or continue after 9 P.M.
 12. Permittee must provide a sign which identifies the telephone number and company or person performing the work. Signage may be affixed to barricades.
 13. A copy of the permit must remain on-site for inspector's review.
 14. Permanent base pavement restoration to follow within 5 days after the completion of underground work.
 15. All pavements are to be restored in accordance with CDOT Construction Standards.
 16. Work to be performed as per plans and specifications.
 17. Streets recently resurfaced must be restored to proper standards (resurface to nearest 1/4 pt, see CDOT Construction Standards for further details).
 18. Permit fees must be paid within 24 hours of the date of issuance. Failure to pay will result in the immediate cancellation of the permit. Monthly billing accounts are not applicable.

ACTIVITY	TRANSACTION	AMOUNT	CAPS
Street Opening (Curb Lane &Traffic Lane)	Fee Pavement Opening	\$ 390.00	300-84-2030-2561
Street Opening (Curb Lane &Traffic Lane)	Fee Pavement Opening	\$ 390.00	300-84-2030-2561
Street Opening (Curb Lane &Traffic Lane)	Fee Pavement Opening	\$ 195.00	300-84-2030-2561
Street Opening (Curb Lane &Traffic Lane)	Fee Pavement Opening	\$ 195.00	300-84-2030-2561
Street Opening (Curb Lane &Traffic Lane)	Fee Pavement Opening	\$ 195.00	300-84-2030-2561

Total Fees: \$ 1,365.00

Grand Total Fees: \$ 1,365.00

Affected CUAN Sites: 7, 15, 18, 21, 22, 24, 29, 31, 34, 38, 53, 83, 109, 111, 141, 147

EFFECTIVE DATES OF PERMIT

Current: Jan 12, 2005 through Jan 31, 2005 (Input date: Jan 25, 2005 4:16:47 p.m.)

Previous: Jan 12, 2005 through Jan 26, 2005 (Input date: Jan 07, 2005 1:13:58 p.m.)

END OF PERMIT

Appendix D

Health and Safety Plan

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EMERGENCY PHONE NUMBERS**IN THE EVENT OF AN EMERGENCY DIAL 911**

AMBULANCE SERVICE	911
FIRE DEPARTMENT	911
EMERGENCY RESCUE SERVICE.....	911
POLICE DEPARTMENT.....	911
NATIONAL RESPONSE CENTER	1-800-424-8802
POISON CONTROL CENTER.....	1-800-732-2200
NORTHWESTERN MEMORIAL HOSPITAL	(312) 908-2000
ILLINOIS DEPARTMENT OF NUCLEAR SAFETY	
(IDNS) EMERGENCY NUMBER	(217) 785-0600
PROJECT COORDINATOR (STEVE KLINE, Alternate JOHN YANG)	(312) 541-4200
SITE PROJECT COORDINATOR (LARRY BERTSCH).....(CELL 630-730-7905).....	(312) 541- 4200
TRI (REMEDATION CONTRACTOR).....(JOHN SWEENEY).....(CELL - 630-830-9323	
STS (STEVE TORRES).....	(847) 279-2474
WALSH CONSTRUCTION (GEN. CONSTRUCTION CONT. -RORY TININEN).....	(312) 907-1539
ILLINOIS EMERGENCY MANAGEMENT	(217) 782-7860
USEPA REGION 5 - 24-HOUR EMERGENCY NUMBER	(312) 353-2318
	(VERNETA SIMON EPA PROJ MANAGER - 312-886-3601)
	(LARRY JENSEN EPA CHP - 312-886-5026)

1.0 SCOPE OF PLAN

The following Health and Safety Plan (HASP) will be utilized and modified as necessary in order to minimize and prevent exposures to hazardous substances and conditions related to all excavation and remediation activities within the Radiological Area of Concern (RAC) and the Right-of-Way (ROW) of the Phase I area of 341 East Ohio Street, Chicago, Illinois (the Site). No development plan is contemplated for Phase II area of the property at this time and the area will be used for soil staging during the related soil excavation and remediation. Thus, the Site HASP is designated for the areas including the RAC, ROW and soil stage area within the Phase II area during the implementation of the Soil Management Plan. All personnel assigned to this project will be required to review thoroughly the contents of the HASP and to strictly adhere to the policies and procedures listed herein. This HASP is for use only by the Site owner and their designated contractors and consultants, and approved Site visitors. USEPA, and other agencies, are not considered visitors and will be required to conform to their own Health and Safety Plans.

Each area in the ROW where trade people may be subject to any radiation levels will be excavated and thoroughly screened prior to any construction activities. Any levels above the established safe criteria, will be shielded with either plastic sheeting, plywood or concrete in order to obtain a safe working environment. Areas that cannot be safely shielded will be removed and properly disposed of, prior to any construction or trade personnel entering the area.

This plan meets the requirements of OSHA 29 CFR 1910.120, Hazardous Waste Operations and Emergency Response, and applicable subparts of OSHA 29 CFR 1926, 1910 and 10 CFR- Visitors will be required to review the health and safety plan and read and sign the visitor information sheet (Figure 1.1).

2.0 SAFETY MANAGEMENT

The following safety management structure will be utilized for the implementation, administration, and monitoring of the HASP.

2.1 HEALTH AND SAFETY COORDINATOR

The Health and Safety Coordinator (HSC) shall assume overall responsibility for the HASP. The HSC or designee shall monitor and maintain quality assurance of the HASP until project completion. Principal duties of the HSC include:

- Review project background data,
- Approve all HASP modifications,
- Administer and enforce the HASP,
- Evaluate the adequacy of personal protective equipment (PPE) to be used by Site personnel,
- Conduct required on-site training except tailgate safety meetings that will be conducted by the Field Team Leader,
- Brief visitors on work Site conditions, and
- Administer personnel and ambient air monitoring procedures.

The HSC or designee has the authority to stop work in the event conditions develop which pose an unreasonable risk to Site personnel or persons in the vicinity.

3.0 PERSONNEL RESPONSIBILITIES

The HSC or designee will administer and supervise the HASP at the work-site level. He will monitor all operations and will be the primary on-site contact for health and safety issues, and will have full authority to stop operations if conditions are judged to be hazardous to on-site personnel or the public.

The HSC will brief all Site personnel on the contents of the HASP. Personnel will be required to review the HASP, and have the opportunity to ask questions about the planned work or hazards. The Field Team Leader will conduct tailgate safety meetings to familiarize the Site personnel with Site conditions, boundaries, and physical hazards. Site personnel will conduct their assigned tasks in accordance with the HASP at all times.

If at any time Site personnel observe unsafe conditions, faulty equipment or other conditions which could jeopardize personnel health and safety, they are required to immediately report their observations to the HSC or Field Team Leader.

Work zones will be established at the Site. These zones include clean/support zones, decontamination zones, and exclusion zones with markings of “caution” tapes. Exclusion zones will be established as necessary within the RAC and the ROW during subsurface excavation activities. Although the clean/support zones are anticipated to remain fixed, other zones will move about the Site as excavation work progresses.

4.0 HAZARD ASSESSMENT

The following represents potential hazards associated with this project.

4.1 PRINCIPAL CONTAMINANTS (KNOWN OR SUSPECTED)

- Thorium
- Uranium
- Radium (Rn-220 and Rn-222)
- Radon

The contaminants are present in the soil at low concentrations. These primary routes of entry to the body will be considered:

ROUTE

Inhalation

Ingestion

Eye and Skin

Direct Exposure

ENTRY MADE VIA:

Airborne dust containing heavy metal radionuclides.

Airborne dust containing heavy metal radionuclides/contaminants

Improper or poor personal hygiene practices.

Direct contact with contaminants.

Improper or poor personal hygiene practices.

Airborne dust containing heavy metal/radionuclides.

Cuts and abrasions.

Penetrating gamma radiation in air and soil.

4.2 PHYSICAL HAZARDS

Before field activities begin, the HSC will conduct a Site reconnaissance to identify any real or potential hazards created from Site activities. Physical hazards inherent to construction activities and power-operated equipment may exist.

4.2.1 *Heat Stress*

Field activities in hot weather create a potential for heat stress. The warning symptoms of heat stress include fatigue; loss of strength; reduced accuracy, comprehension and retention; and reduced alertness and mental capacity. To prevent heat stress, personnel shall receive adequate water supplies and electrolyte replacement fluids, and maintain scheduled work/ rest periods.

The Field Team Leader or designee shall continuously visually monitor personnel to note for signs of heat stress. In addition, field personnel will be instructed to observe for symptoms of heat stress and methods on how to control it. One or more of the following control measures can be used to help control heat stress:

- Provision of adequate liquids to replace lost body fluids. Employees must replace body fluids lost from sweating. Employees must be encouraged to drink more than the amount required to satisfy thirst, 12 to 16 ounces every half-hour is recommended. Thirst satisfaction is not an accurate indicator of adequate salt and fluid replacement. Replacement fluids can be commercial mixes such as Gatorade.
- Establishment of a work regimen that will provide adequate rest periods for cooling down. This may require additional shifts of workers.
- Breaks should be taken in a cool and shaded rest area (77 degrees is best).
- Employees shall remove impermeable protective garments during rest periods.
- Employees shall not be assigned other tasks during rest periods.
- All employees shall be informed of the importance of adequate rest, acclimation, and proper diet in the prevention of heat stress.

4.2.2 *Cold Stress*

Persons working outdoors in temperatures of 40 degrees and below may suffer from cold exposure. During prolonged outdoor periods with inadequate clothing, effects of cold exposure may even occur at temperatures well above freezing. Cold exposure may cause severe injury by freezing exposed body surfaces (frostbite) or result in profound generalized cooling, possibly causing death. Areas of the body which have high surface area-to-volume ratios such as fingers, toes and ears are the most susceptible to frostbite.

Two factors influence the development of a cold injury: ambient temperature and the velocity of the wind. Wind chill is used to describe the chilling effect of moving air in combination with low temperature. For instance, 10° F with a wind of 15 miles per hour (mph) is equivalent in-chilling effect to still air at -18° F.

As a general rule, the greatest incremental increase in wind chill occurs when a wind of 5 mph increases to 10 mph. Additionally, water conducts heat 240 times faster than air. Thus, the body cools suddenly when external chemical-protective equipment is removed if the clothing underneath is perspiration-soaked.

Local injury resulting from cold is included in the generic term "frostbite". There are several degrees of damage. Frostbite of the extremities can be categorized into:

- Frost nip or incipient frostbite: Characterized by sudden blanching or whitening of skin.
- Superficial frostbite: Skin has a waxy or white appearance and is firm to the touch, but tissue beneath is resilient.
- Deep frostbite: Tissues are cold, pale, and solid; extremely serious injury.

Prevention of frostbite is vital. Keep the extremities warm. Wear insulated clothing as part of one's protective gear during extremely cold conditions. Check for symptoms of frostbite at every break. The onset is painless and gradual - you might not know you have been injured until it is too late.

To administer first aid for frostbite, bring the victim indoors and re-warm the areas quickly in water 95° to 100°F. Give individual a warm drink - not coffee, tea, or alcohol. The victim should not smoke. Keep the frozen parts in warm water or covered with warm clothes for 30 minutes, even though the tissue will be very painful as it thaws; then elevate the injured area and protect it from injury. Do not allow blisters to be broken. Use sterile, soft, dry material to cover the injured areas. Keep victim warm and get immediate medical care.

4.2.3 Electrical Hazards

Overhead power lines, downed electrical wires, buried cables and improper use of electrical extension cords can pose a danger of shock or electrocution. All Site personnel should immediately report to the Field Team Leader any condition that could result in a potential electrical hazard.

The Field Team Leader will notify Site personnel during the safety meetings of the locations of known underground cables and utilities.

4.2.4 Noise Hazard

Operation of equipment may present a noise hazard to workers. Site personnel will utilize hearing protection when noise levels are determined to be in excess of 29 CFR 1910.95 requirements. Noise monitoring will be performed to determine noise levels by the Field Team Leader.

4.2.5 Overt Chemical Exposure

Typical response procedures include:

SKIN CONTACT:

Use copious amounts of soap and water. Wash/rinse affected area thoroughly, then provide appropriate medical attention. Eye wash will be provided on-site by contractor at the work zone and support zone as appropriate. If affected, eyes should be continuously flushed for a minimum of 15 minutes.

INHALATION:

Move to fresh air and transport to hospital. Decontaminate as other actions permit.

INGESTION:

Transport to emergency medical facility. Decontaminate as permitted by other requirements.

PUNCTURE WOUND OR LACERATIONS:

Transport to emergency medical facility. Field Team Leader will provide Material Safety Data Sheets (MSDS) to medical personnel as requested. Decontaminate as permitted by other requirements.

4.2.6 *Adverse Weather Conditions*

In the event of adverse weather conditions, the Field Team Leader will determine if work can continue without endangering the health and safety of field workers. Some items to be considered before determining if work should continue are:

- Potential for heat stress and heat-related injuries.
- Potential for cold stress and cold-related injuries.
- Treacherous weather-related working conditions.
- Limited visibility.
- Potential for electrical storms or high winds.

4.3 MEDICAL EVALUATION AND SURVEILLANCE PROGRAM

All field project personnel shall receive a medical evaluation in accordance with 29 CFR 1910.120. Personnel who receive a medical evaluation will be notified by the medical contractor as to the outcome of their evaluation. This will be in the form of a confidential report addressed to the individual and will contain a breakdown of the clinical findings. In addition, it will indicate any areas of concern which would justify further medical consultation by the individual's personal physician. In the event that the areas of concern are of a severe nature, a follow-up notification will be made to the individual by the medical consultant to answer any questions the employee may have.

4.3.1 *Dosimetry/Personnel Monitoring*

All project personnel shall participate in a dosimetry program administered by the Project Health Physics Personnel. The dosimetry program shall comply with 32 IAC 340 (i.e. dosimeters shall be processed by a dosimetry processor accredited by the National Voluntary Laboratory Accreditation Program). The Project Health Physics Personnel shall maintain records of all radiation exposures incurred by field personnel including all contractors. These records will be maintained in an up-to-date manner to comply with the requirements of 32 IAC 340.4010. The HSC shall review the results of personal exposure monitoring to determine compliance with exposure limit requirements.

4.3.2 *Requirement for Dosimetry*

Personal dosimetry is required for anyone who enters a work area within the Site in which he/she may receive in one calendar year a dose in excess of 10% of the limits in 32 IAC 340. Any person who works in a radiation area will be required to have a personal dosimeter. As a matter of policy, all individuals shall be required to use a dosimeter (either self-reading type, film badge or Thermoluminescence Detector (TLD)) whenever they enter the Exclusion Zone.

4.3.3 *Bioassay*

Bioassay is the determination of the types and amounts of radioactive materials, which are inside the body. By analyzing the rate of deposition, the rate of excretion, and any other available information regarding placement in the body, internal exposures from radioactive materials can be estimated.

Bioassays are not anticipated to be required for the excavation and removal activities proposed, based on levels documented as present. The determination of the need for bioassay will be based on dosimetry monitoring and review and recommendations from the Project Health Physics personnel.

4.3.4 *Emergency Medical Treatment*

Emergency first aid should be administered on-site as appropriate. An emergency first-aid station will be established and will include a first-aid kit for onsite emergency first aid. The individual should be decontaminated if possible, depending on the severity of the injury, and transported to the nearest medical facility, if needed.

Treatment of the injury is of primary concern and decontamination a secondary concern. Levels of radioactive contamination at the Site could be acutely hazardous if decontamination is not undertaken during an emergency situation. The Field Team Leader will complete the appropriate incident report, if warranted. See Section 4.4, Accident and Incident Reporting.

Provisions for emergency medical treatment shall be integrated with the following guidelines:

- At least one individual qualified to render first aid and Cardiopulmonary Resuscitation (CPR) will be assigned to each shift.
- Emergency first aid stations in the immediate work vicinity.
- Conspicuously posted phone numbers and procedures for contacting ambulance services, fire department, police, and medical facilities.
- Maps and directions to medical facilities.
- Conspicuously posted evacuation routes and gathering area locations shall be posted around the Site.

4.4 ACCIDENT AND INCIDENT REPORTING

All accidents, injuries, or incidents will be reported to the HSC. This accident/ incident will be reported as soon as possible to the employee's supervisor. An Accident/Incident Form will be completed by the Field Team Leader, and a copy will be forwarded to the Project Manager. A copy of the form is shown as Figure 4.1.

5.0 TRAINING

All Site personnel shall be trained and certified in accordance with 29 CFR 1910.120.

5.1 PROJECT- AND SITE-SPECIFIC TRAINING

Prior to project start-up, all assigned personnel shall receive an initial project- and site-specific training session. The training will include a discussion of radiation basics. This training shall include, but not be limited to, the following areas:

- Review of the Health and Safety Plan;
- Review of applicable radiological and physical hazards;
- PPE levels to be used by Site personnel;
- Site security control;
- Emergency response and evacuation procedures;
- Project communication;
- Required decontamination procedures;
- Prohibited on-site activities;
- Instructions to workers in accordance with 10 CFR 1912; and
- U.S. NRC Regulatory Guide 8.13 and Declared Pregnant Woman Policies (Females).

5.2 VISITOR ORIENTATION

All non-essential personnel and visitors who plan to enter the exclusion zone will be briefed on the HASP requirements and 10 CFR 1912 requirements prior to entry with a trained Site escort. In addition, female visitors will be instructed regarding U.S. NRC Regulatory Guide 8.13 and Declared Pregnant Woman Policies.

5.3 SAFETY TAILGATE MEETINGS

Before the start of the workweek, on Monday morning, the Field Team Leader will assemble the Site personnel for a brief safety meeting. The purpose of these meetings will be to discuss project status, problem areas, conditions, safety concerns, PPE levels and to reiterate HASP requirements. The Field Team Leader will complete a Safety Meeting Report (Figure 5.1) to indicate the contents of the meeting and the attendees.

5.4 FIRST AID

At least one (1) individual, trained and qualified to administer first aid and CPR in accordance with American Red Cross requirements, will be present at the Site.

5.5 SAFE WORK PERMIT

Site workers in special work conditions such as confined space, hot work, trenching, or other physical hazards, must be skilled at such work and trained to recognize these as special work conditions. Confined space is defined by OSHA 1910.146. Section 13 of this HASP contains further information on the confined space program to be followed. Site workers will be provided with work permit by the HSC.

6.0 COMMUNICATIONS

6.1 GENERAL COMMUNICATIONS

The Field Team Leader will have available at the Site the means for telephone communications, or an equivalent means of communication, for summoning emergency assistance from the fire/ambulance and police departments in the event they are required. The telephone will also act as a direct link to technical personnel for information pertaining to all phases of the project.

6.2 RADIO/TELEPHONES

Short-range walkie-talkies or cellular telephones will be made available to designated personnel working at the Site.

6.3 EMERGENCY WARNING

In the event of an emergency condition, the Field Team Leader will notify project personnel verbally if all are within immediate hearing and via a bullhorn if the Site area is large. The Field Team Leader will also notify visitors present within the area. Site personnel will immediately proceed to a pre-designated assembly area as designated by the Field Team Leader during the daily safety meeting. Personnel will remain in the designated area until further instructions are received by the Field Team Leader.

All communication equipment will be tested at the beginning of each day to verify operational integrity.

6.4 HAND SIGNALS

Hand signals will be used by field teams in conjunction with the buddy system. Hand signals shall be familiar to the entire field team before operations commence and should be reviewed during site-specific training.

<u>Signal</u>	<u>Meaning</u>
Hand gripping throat	Out of air; can't breathe
Grip partner's wrist	Leave area immediately; no debate
Hands on top of head	Need assistance
Thumbs up	OK; I'm all right; I understand
Thumbs down	No; negative

6.5 SITE SECURITY

Visitors and other non-essential personnel may enter the Site only upon authorization by the Field Team Leader. This restricted access will ensure that the Field Team Leader can communicate with each person authorized to enter the work area.

7.0 PERSONNEL EXPOSURE AND AIR QUALITY MONITORING

7.1 AIR QUALITY (DUST)

Due to the nature of the principal contaminants associated with the project, dust suppression will be important as a means of minimizing exposure levels and off-site migration of contaminants. Per USEPA protocols there will be no visible dust generated during the activities. The Field Team Leader will routinely monitor the Site. The OSHA personal exposure limit (PEL) for nuisance dust is 15 mg/m³.

7.2 AIRBORNE RADIOACTIVITY MONITORING

Monitoring for airborne radioactivity exposure is as important as monitoring for external radiation exposure. Monitoring for airborne radioactivity exposure requires the following elements:

- Air sampling for radioactive particulates,
- Record keeping regarding personnel work locations and time in location, and
- Respiratory protective equipment records regarding devices used by workers in airborne radioactivity areas.

By closely monitoring these three elements, a continuous record of personnel exposure to airborne radioactivity is maintained.

Monitoring of potential worker exposure to radiation will be done using dosimeters (film badges) and personal air sampling equipment, as warranted. Individual dosimeters will be analyzed at the conclusion of discrete field efforts or mobilizations to the site. It is expected that naturally occurring radon and thorium daughters will interfere with analyses. Additional evaluation of samples shall be performed if it is determined to be necessary based upon elevated results. Such analyses shall be performed after allowing time for decay of some interfering radionuclides. Filters used in personal air monitoring equipment will be analyzed for radioactive elements (radionuclides) at a frequency of one per week during the cleanup of radiologically-impacted material. This analysis will be performed on a 24 to 48-hour laboratory turnaround basis by RSSI of Morton Grove, Illinois

Downwind monitoring of the excavation areas for radioactive particulate activity also will be performed if radiation "hot spots" are detected. If required, STS consultants will ensure that high volume air samplers are setup and run continuously during operations and be evaluated on a daily basis for total radium. Comparisons will be made Federal Regulations and to 32 IAC 340 Appendix A if more restrictive to ensure that adequate radiological controls are in place for workers and the general public. As low as reasonably achievable (ALARA) concepts will be utilized when considering protective measures to ensure that internal exposures are minimized, while also considering the effects of such protective measures with respect to external exposures. Controls on the Site, such as wetting of soils and procedural changes, will be employed prior to the prescription of respiratory protective equipment.

Time decay of interfering nuclides generally refers to radon-222 decay and daughters but may also include thorium decay. The specific times for decay of samples is best addressed in procedures rather than in the health and safety plan. Air samples will be decayed a minimum of 5 hours to allow for counting without interference from radon-222 and its daughters. Thorium (Rn-220), if present in significant amounts, will require decay for up to 4 days to allow for decay of its Pb-212 daughter (10.6 hour half life).

After filters have been collected and decayed overnight, there will be a morning count by the lab of the filter that will serve to identify high gross counts for the previous day. Filters used in high volume air monitoring will be analyzed for radioactive elements (radionuclides) at a frequency of one per week during the cleanup of radiologically-impacted material. This analysis will be performed on a 24 to 48-hour laboratory turnaround basis by RSSI of Morton Grove, Illinois. Results will alert health and safety staff of a potential problem, which they can investigate more promptly. The total radium count, after 4 days decay, will serve to be the official measurement of Th-Alpha.

7.3 INTERNAL MONITORING

Internal monitoring to determine intakes of radioactive material will be performed as needed based upon the results of the air sampling program. Bioassay methods to be considered should include in-vivo, as well as in-situ, assessments. Routine bioassay of workers is not anticipated based upon the low concentrations of radioactivity in soils to be excavated.

7.4 EXTERNAL RADIATION MONITORING

External radiation monitoring of workers will be performed using film badges or thermoluminescent dosimeters. Dosimetry will be provided and processed by a service holding National Voluntary Laboratory Accreditation Program (NVLAP) certification. Pocket dosimeters may also be utilized for visitors and other infrequent personnel requiring access to the Site.

7.5 RADIOLOGICAL SURVEYS

Radiological surveys will be performed to ensure that radiation levels and contamination levels are within regulatory limits for workers and the general public. Radiation surveys will consist of ambient gamma surveys using sodium iodide detector or others, as appropriate.

7.6 CONTAMINATION MONITORING

Samples shall be obtained periodically in the Site to ensure that radioactivity is present at acceptable levels and is prevented from leaving the Site. Decontamination of elevated areas will be performed to maintain contamination at levels at regulatory levels (NRC 1.86 level or IDNC if more restrictive) as well as to ALARA.

Before leaving the exclusion zone, Site personnel shall be checked through use of a hand-held frisker to ensure that contamination is not present on skin or clothes. The Field Team Leader will be immediately informed regarding any contamination on individuals and will initiate appropriate decontamination techniques. Proper disposition of contaminated personal effects and clothing also will be the responsibility of the Field Team Leader.

7.7 ACTION LEVELS

7.7.1 Radiological Action Levels

Radiological action levels for on-site workers will be determined by a Geiger-Mueller (GM) pancake detector as well as airborne particulate monitoring for the presence of radioactivity. The Field Team Leader will perform radiological monitoring. The radioactive contamination on the Site is generally particulate and insoluble in water. It is anticipated that in most cases there will be no fixed contamination on the workers. Action levels as determined by radioactive monitoring can be found in Table 7.1. Any actions at the site will also be based on gamma exposure rates.

To minimize the need for upgrade of personal protection equipment due to airborne contamination, engineering controls such as the use of water to minimize dust levels will be implemented as necessary during excavation and restoration activities.

8.0 PERSONAL PROTECTIVE EQUIPMENT

It is anticipated that most excavation activities in designated exclusion zones can be conducted in Level D personal protective equipment (PPE), with a contingency upgrade to Level C, based on the action levels listed in Section 7. Level C will be used when required by Special Work Permits, or when directed by the Field Team Leader.

Modified Level D personal protective clothing and equipment for excavation activities includes:

- Tyvek Coveralls
- Hard hat
- Chemical resistant, OSHA approved safety shoes/boots
- Surgical Gloves
- Safety glasses
- Dust mask (optional)
- Booties

Level C protective clothing and equipment includes:

- Full-face air-purifying respirator (NIOSH/MSHA approved) fitted with radionuclides/HEPA cartridges and/or organic vapor cartridges, depending on which action levels are exceeded (see Section 7 of s HASP)
- Coveralls
- Tyvek coveralls - required in areas when splashing by contaminated soils or water is a possibility
- Cotton or leather gloves
- Disposable latex inner gloves - required in areas when splashing by contaminated soils or water is a possibility
- Nitrile outer gloves (taped) - required in areas when splashing by contaminated soils or water is a possibility
- Chemical-resistant steel toe boots
- Hard hat

Action levels used to determine the need to upgrade or downgrade the levels of protection are described in Section 7.0 of this HASP

9.0 CONTAMINATION REDUCTION PROCEDURES

9.1 EQUIPMENT

Portable equipment will be decontaminated with soap and water and rinsed with tap water. Heavy equipment will be steam-cleaned with water and, if necessary, a detergent solution. It is not anticipated that chemical cleaning will be necessary for decontamination.

9.2 PERSONNEL

If levels of radioactivity show that individuals can remove coveralls and other personal protective clothing and equipment before leaving the work-site and, thus complete decontamination, the individuals may leave the Site. If, however, levels of radioactivity show that individuals cannot achieve decontamination by the removal of coveralls and showering is required, they will be dressed in clean coveralls, boots and gloves and be transported to Northwestern Memorial Hospital to complete decontamination.

If substantial skin contamination occurs on an individual working with radioactive materials, the following specific procedures should be followed to prevent fixation of the material in the skin or absorption of the radioactivity through the skin. Numerical action criteria is listed in attached Table 7.1.

Immediate Action: Notify the HSC or Field Team Leader, who will supervise the decontamination. If contamination is spotty, the HSC or Field Team Leader will supervise the cleaning of the individual spots with swabs, soap, or water. If the contamination is general, the HSC or Field Team Leader may recommend washing the area gently in warm or cool water (not hot) using hand soap (not detergent) for one minute. Rinse, dry, and monitor for radioactivity. This soap wash step may be repeated three times.

Evaluation: If the above procedure fails to remove all the skin contamination, the treatment should cease. An evaluation of the skin contamination should be performed by the HSC or Field Team Leader including an estimate of the dose commitment to the skin, and the quantity and identity of the nuclides contaminating the skin. If additional decontamination steps are necessary, they are performed and documented by the HSC. The guidelines for Personnel Decontamination in the Radiological Health Handbook, HEW 1970, beginning on page 194, can be used as applicable. CAUTION: Do not use chemicals for personnel decontamination until full evaluation of the contamination is made by the HSC or Field Team Leader.

9.3 CONTAMINATION PREVENTION

Work practices that minimize the spread of contamination will reduce worker exposure and help ensure valid sample results by precluding cross-contamination. Procedures for contamination avoidance include:

- knowing the limitations of all personal protective equipment being used
- avoiding walking through areas of obvious or known contamination
- refraining from handling or touching contaminated materials directly. Do not sit or lean on potentially contaminated surfaces
- ensuring personal protective equipment has no cuts or tears prior to donning
- fastening all closures on suits, covering with tape if necessary
- taking steps to protect against any skin injuries
- staying upwind of airborne contaminants
- When working in contaminated areas, refraining from eating, chewing gum, smoking, or engaging in any activity from which contaminated materials may be ingested

9.4 DISPOSAL PROCEDURES

All discarded materials, waste materials, or other field equipment and supplies should be handled in such a way as to preclude the spread of contamination, creating a sanitary hazard, or causing litter to be left on-site. All potentially contaminated waste materials (e.g., clothing, gloves) shall be monitored, and placed in the metal container provided by Kerr-McGee that designated for radioactive waste. Appropriate labels shall be affixed to all containers of radioactive materials.

10.0 GENERAL WORK PRECAUTIONS

10.1 GENERAL WORK PRECAUTIONS

The following general work precautions apply to all Site personnel.

- Eating, drinking, chewing gum or tobacco, smoking, or any practice that increases the probability of hand-to-mouth transfer and ingestion of material is prohibited in the work area.
- Hands and face must be thoroughly washed upon leaving the work area. Wash water will be provided at the Site for this purpose.
- Whenever levels of radioactivity warrant, the entire body should be thoroughly washed, as soon as possible, after the protective coveralls and other clothing are removed as part of the decontamination process.
- No facial hair that interferes with a satisfactory fit of the mask-to-face-seal is allowed on personnel required to wear respirators.
- Contact with contaminated or suspected contaminated surfaces should be avoided. Whenever possible, do not walk through puddles, Leachate, discolored surfaces, kneel on ground, lean, sit, or place equipment on drums, containers, or the ground.
- Medicine, drugs and alcohol may interfere with or impair judgment and reaction times. Therefore, usage of prescribed drugs must be specifically approved by a qualified physician and made known to the Field Team Leader prior to an individuals' presence on the work-site. Alcoholic beverage intake is strictly prohibited at the Site and prior to work.
- All personnel must be familiar with standard operating procedures and any additional instructions and information contained in the HASP.
- All personnel must adhere to the requirements of the HASP.
- Contact lenses are not permitted when respiratory protection is required or where the possibility - of a splash exists.
- Personnel must be cognizant of symptoms for heat stress and cold stress, and knowledgeable regarding emergency measures contained in the Emergency Plan.
- Respirators shall be inspected, cleaned and disinfected after each day's use or more often, if necessary.
- Each employee shall be familiar with his/her company's Respiratory Protection Program.

Any radioactive or potentially radioactive PPE, decon water and other items will be placed in the designated Kerr-McGee supplied container for proper disposal.

10.2 OPERATIONAL PRECAUTIONS

The following operational precautions must be observed at all times.

- All Site personnel shall be adequately trained and thoroughly briefed on anticipated hazards, equipment to be worn, safety practices to be followed, emergency procedures, and communications.
- All required respiratory protective devices and clothing shall be worn by all personnel going into areas designated for wearing protective equipment.
- All Site personnel shall use the buddy system when wearing respiratory protective equipment. At a minimum, a third person, suitably equipped as a safety backup, is required .
- During continual operations, on-site workers act as a safety backup to each other. Off-site personnel provide emergency assistance.
- Personnel should practice any unfamiliar operations prior:-to undertaking the actual procedure.
- Entrance and exit locations shall be designated and emergency escape routes delineated. Warning signals for Site evacuation must be established.
- Personnel and equipment in the Site should be minimized, consistent with effective Site operations.
- Work areas for various operational activities shall be established.
- Procedures for leaving a contaminated area shall be planned and implemented prior to going on-site. Work areas and decontamination procedures shall be established based on expected Site conditions.
- Frequent and regular inspection of Site operations will be conducted by the HSC to ensure compliance with the HASP. If any changes in operation occur, the HASP will be modified to reflect those changes.

11.0 SANITARY FACILITIES

11.1 POTABLE WATER

- a. An adequate supply of potable drinking water shall be maintained at all times immediately outside the Site. Drinking water shall meet all federal, state and local health requirements.
- b. Drinking water shall be supplied to project personnel via approved dispensing sources.
- c. Paper cups shall be permitted for the drinking of potable water supplies.
- d. Drinking water dispensers shall be clearly marked and shall, in no way, have the potential for contamination from non-potable supplies.
- e. Site personnel must be fully decontaminated prior to approaching the drinking water supply.

11.2 TOILET FACILITIES

- a. Adequate toilet facilities shall be provided at the Site.
- b. These facilities shall be in the form of portable chemical toilets.
- c. Routine servicing and cleaning of the toilets should be established with the selected contractor and shall be in accordance with federal, state, and local health regulations.
- d. Site personnel must be fully decontaminated prior to approaching the toilet facilities.

11.3 WASHING AREAS

- a. Adequate washing areas shall be provided for personal use within the work area.
- b. Washing areas shall be maintained in a sanitary condition and will be provided with adequate supplies of soap towels for drying, and covered waste receptacles.
- c. Washing areas shall be maintained and sanitized daily.
- d. No eating, drinking or smoking shall be permitted in the work area. This policy will be strictly enforced by the Field Team Leader.

12.0 FIRE CONTROL EQUIPMENT

An adequate number of approved portable fire extinguishers (class rated A, B and C) shall be readily available at the Site at all times.

All Site personnel shall be trained in the use of the extinguishers. Extinguishers shall only be used on outbreak stage fires or fires of minor nature. The local fire department shall be contacted in the event of a larger fire.

13.0 CONFINED SPACE PROGRAM

13.1 PURPOSE

In the event that confined space work is a necessity, a Confined Space Program will be implemented. Training in the recognition of confined spaces is a component of the health and safety training program.

The purpose of the Confined Space Program is to establish procedures to protect personnel from this serious hazard in the course of their work, and at a minimum, to comply with 29 CFR OSHA 1910.146. This document assigns responsibilities and sets standards for personnel engaged in activities where confined spaces may be present.

13.2 RESPONSIBILITIES

13.2.1 Health and Safety Coordinator

The Health and Safety Coordinator (HSC) administers the Confined Space Program. The Health and Safety Coordinator's responsibilities include:

- Review of the HASP for potential confined space hazards and design alternative approaches to accomplish the confined space tasks;
- Coordinating and managing the Confined Space Program in the event one is required;
- Establishing priorities for implementation of the program;
- Assisting with recognition and implementation of the Confined Space Program;
- Advising project management on confined space issues; and
- Communicating the Confined Space Program to personnel by training related to specific Site activities.

13.2.2 Project Manager

The Project Manager (PM) directs the application of the Confined Space Program to project work. The Project Manager is responsible for:

- Working with the Health and Safety Coordinator to prepare information describing activities that might be conducted in a confined space area;
- Assuring that all personnel engaged in project activities are familiar with the definition of a confined space;
- Assuring that personnel are familiar with the Confined Space Program, and that project activities are conducted in compliance with the Confined Space Program;
- Assuming the responsibilities of the Field Team Leader if another person is not assigned these responsibilities.

13.2.3 Field Team Leader

The Field Team Leader (FTL) is responsible for the implementation of the Confined Space Program on-site during field activities. The Field Team Leader is responsible for:

- Overseeing implementation of the Confined Space Program during field operations; and
- Reporting confined space work activity, and any violations of the Confined Space Program, to the Project Manager and the Health and Safety Coordinator.

13.2.4 Personnel

Personnel are responsible for:

- Familiarizing themselves with the Confined Space Program and following it;
- Becoming familiar with the criteria for determining a confined space, and with the monitoring, permitting, and other requirements of the program; and
- Reporting immediately a confined space condition to the Field Team Leader.

13.3 DEFINITION OF A CONFINED SPACE

Confined space means a space that

1. Is large enough and so configured that an employee can bodily enter and perform assigned work
2. Has limited or restricted means for entry or exit (such as pits, storage bins, hoppers, crawl spaces, and storm cellar areas)
3. Is not designed for continuous employee occupancy

Any workspace meeting all of these criteria is a confined space and the Confined Space Program must be followed.

13.4 CONFINED SPACE ENTRY PROCEDURES

13.4.1 Safety Work Permit Required

All spaces shall be considered permit-required confined spaces until the pre-entry procedures demonstrate otherwise. The Confined Space Entry Permit (Figure 13.1) for entry into a confined, space must be completed before work begins; it verifies completion of the items necessary for confined space entry. The Permit will be kept at the Site for the duration of the confined space work. If there is an interruption of work, or the alarm conditions change, a new Permit must be obtained before work begins.

A permit is not required when the space can be maintained for safe entry by 100% fresh air mechanical ventilation. This must be documented and approved by the Health and Safety Coordinator. Mechanical ventilation systems, where applicable, shall be set at 100% fresh air.

The Field Team Leader must certify that all hazards have been eliminated on the Entry Permit. If conditions change, a new permit is required.

13.4.2 Pre-entry Testing for Potential Hazards

a. Surveillance

Personnel first will survey the surrounding area to assure the absence of hazards such as contaminated water, soil, sediment, barrels, tanks, or piping where vapors may drift into the confined space.

b. Testing

No personnel will enter a confined space if any one of these conditions exists during pre-entry testing. Determinations will be made for the following conditions:

1. Presence of toxic gases or dusts: Equal to or more than 5 parts per million (ppm) on the organic vapor analyzer with an alarm, above background outside the confined space area; or other action levels for specific gases, vapors, or dusts as specified in the Health and Safety Plan and the Confined Space Permit based on knowledge of Site constituents;

2. Presence of explosive/flammable gases: Equal to or greater than 10% of the Lower Explosive Limit (LEL) as measured with a combustible gas indicator or similar instrument (with an alarm); and ,
3. Oxygen Deficiency: A concentration of oxygen in the atmosphere equal to or less than 19.5% by volume as measured with an oxygen meter.

Pre-entry test results will be recorded and kept at the Site for the duration of the job by the Field Team Leader. Affected personnel can review the test results.

- c. **Authorization**
Only the Field Team Leader and the Health and Safety Coordinator can authorize any personnel to enter into a confined space. This is reflected on the Safe Work Permit for entry into a confined space. The Field Team Leader must assure that conditions in the confined space meet permit requirements before authorizing entry.,
- d. **Safe Work Permit**
A Safe Work Permit for confined space entry must be filled out by the Health and Safety Coordinator or Field Team Leader. A copy of the Safe Work Permit is included as Figure 5.2.
- e. **Attendants**
One worker will stand by outside the confined space ready to give assistance in the case of an emergency. Under no circumstances will the standby worker enter the confined space or leave the standby position. There shall be at least one other worker not in the confined space within sight or call of the standby worker.
- f. **Observation and Communication**
Communications between standby worker and entrant(s) shall be maintained at all times. Methods of communication that may be specified in the Safe Work Permit and the HASP may include. voice, voice by powered radio, tapping or rapping codes, signaling tugs on rope, and standby worker's observations that activity appears normal. . .

13.4.3 Rescue Procedures

Acceptable rescue procedures include entry by a team of rescuers only if the appropriate self-contained breathing apparatus (SCBA) is available; or use of public emergency services.

The standby worker must be trained in first aid, CPR, and respirator use. A first aid kit should be on hand and ready for emergency use. The standby worker must be trained in rescue procedures. Retrieval of an unconscious victim in a confined space will only be conducted by trained rescue personnel. An emergency call to 911 will be initiated to assist the victim.

13.5 TRAINING

Personnel who will engage in field activities will be given annual training on the requirements and responsibilities in the Confined Space Program and on OSHA 1910.146. Only trained personnel can work in confined spaces. Workers should be experienced in the tasks to be performed, instructed in proper use of respirators, lifelines and other equipment, and practice emergency procedures and self-rescue.

Before each Site activity, the determination of confined space work will be part of the Site characterization process. Training in the site-specific confined space activities will be part of the site-specific health and safety training:

13.6 SAFE WORK PRACTICES

- Warning signs should be posted. These include warnings for entry permits, respirator use, prohibition of hot work and emergency procedures and phone numbers.
- Cylinders containing oxygen, acetylene or other fuel such as gasoline must be removed a safe distance from the confined space work area.
- Purging and ventilating is done before work begins to remove hazardous vapors from the space. The space should be monitored to ensure that the gas used to purge the space (e.g, tank) has also been removed. Local exhaust should be used where general exhaust is not practical.
- The buddy system is used at all times. A standby person always must be posted within sight of, or in communication with, the person inside the confined space. The standby should not enter the confined space, but instead will call for help in an emergency and not leave the post. Communication should be maintained at all times with workers inside the confined space.
- Emergency planning in the HASP and a Safe Work Permit must be approved in advance and the proper rescue equipment must be immediately available.
-

14.0**ELECTRICAL LOCKOUT/TAGOUT**

The field Team Leader must approve all work in areas requiring lockout/tagout procedures. Specific procedures and permitting requirements will be specified in the HASP, or in a revised HASP based on the need for a worker to work around electrical equipment.

All systems must be locked out and tagged before the work begins. This includes pipes, air lines, electrical equipment and mechanical devices. The equipment must be start tested and approved for use by a worker by the Health and Safety Coordinator of the Field Team Leader by start-testing to make sure the locked-out equipment does not operate.

Please sign this sheet to acknowledge that you have read the Work Plan and Health and Safety Plan and understand their contents. Also sign in each day at the site.

Date[illegible]

Appendix E

Laboratory Analytical Results

- **Analytical Results for Non-radioactive Fill**
- **Radiological Sample Results**
- **Confirmatory Sample Results**



**First
Environmental
Laboratories, Inc.**

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233
IL ELAP / NELAC Accreditation # 100292

January 25, 2005

Mr. Larry Bertsch
GAIA TECH INC.
200 North LaSalle, Suite 2600
Chicago, IL 60601

Project ID: 49175000
First Environmental File ID: 46762
Date Received: January 19th, 2005

Dear Mr. Bertsch:

The above referenced project was analyzed as directed on the enclosed chain of custody form.

Analyses were performed in accordance with methods from the USEPA publication Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 3rd Edition, December 1996. The actual method references are listed on the Analytical Report. Results except for TCLP parameters are reported on a dry weight basis per method protocols. Herbicide analysis was performed by PDC Laboratories, Inc of Peoria, IL (IL ELAP 100230).

All analyses were performed within established holding times, and all Quality Control criteria as outlined in the methods and current IL ELAP / NELAP have been met; Certificate No. 000986 – 03/02/04 through 02/28/05. QA/QC documentation will remain on file for future reference.

It has been a pleasure providing you with analytical services, and we look forward to working with you again in the future. If you have any questions regarding this report, or need additional information, please contact me at (630) 778-1200.

Sincerely,

Stan Zaworski
Project Manager



First Environmental Laboratories, Inc.

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IL ELAP / NELAC Accreditation # 100292

Client: GAIATECH, INC.

Project Number: 49175000

Sample ID:	WC-1 (Composite)
Date Taken:	01/17/05
Time Taken:	15:00
Lab Sample ID:	46762
Volatile Compounds - Method 5035A/8260B (mg/kg)	
Date of Analysis	01/20/05
Acetone	<0.010
Benzene	<0.005
Bromodichloromethane	<0.005
Bromoform	<0.005
Bromomethane	<0.010
2-Butanone	<0.010
Carbon disulfide	<0.005
Carbon tetrachloride	<0.005
Chlorobenzene	<0.005
Chlorodibromomethane	<0.005
Chloroethane	<0.010
Chloroform	<0.005
Chloromethane	<0.010
1,1-Dichloroethane	<0.005
1,2-Dichloroethane	<0.005
1,1-Dichloroethene	<0.005
cis-1,2-Dichloroethene	<0.005
trans-1,2-Dichloroethene	<0.005
1,2-Dichloropropane	<0.005
cis-1,3-Dichloropropene	<0.005
trans-1,3-Dichloropropene	<0.005
Ethyl benzene	<0.005
2-Hexanone	<0.010
4-Methyl-2-pentanone	<0.010
Methylene chloride	<0.005
MTBE	<0.005
Styrene	<0.005
1,1,2,2-Tetrachloroethane	<0.005
Tetrachloroethene	<0.005
Toluene	<0.005
1,1,1-Trichloroethane	<0.005
1,1,2-Trichloroethane	<0.005
Trichloroethene	<0.005
Vinyl Acetate	<0.010
Vinyl Chloride	<0.002
Xylenes	0.011



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IL ELAP / NELAC Accreditation # 100292

Client: GAIATECH, INC.

Project Number: 49175000

Sample ID:	WC-1 (Composite)
Date Taken:	01/17/05
Time Taken:	15:00
Lab Sample ID:	46762
BNA Compounds Method 3540C/8270C (ug/kg)	
Date of Analysis	01/24/05
Acenaphthene	<0.330
Acenaphthylene	0.901
Anthracene	1.550
Benzidine	<0.330
Benzo[a]anthracene	6.200
Benzo[b]fluoranthene	6.850
Benzo[k]fluoranthene	4.730
Benzo[g,h,i]perylene	2.380
Benzo[a]pyrene	6.980
Benzoic Acid	<0.330
Benzyl Alcohol	<0.330
bis(2-chloroethoxy)methane	<0.330
bis(2-chloroethyl)ether	<0.330
bis(2-chloroisopropyl)ether	<0.330
bis(2-ethylhexyl)phthalate	<0.330
4-Bromophenyl-phenylether	<0.330
Butylbenzylphthalate	<0.330
Carbazole	<0.330
4-Chloroaniline	<0.330
4-Chloro-3-methylphenol	<0.330
2-Chloronaphthalene	<0.330
2-Chlorophenol	<0.330
4-Chlorophenyl-phenylether	<0.330
Chrysene	6.350
Dibenz[a,h]anthracene	1.410
Dibenzofuran	0.388
1,2-Dichlorobenzene	<0.330
1,3-Dichlorobenzene	<0.330
1,4-Dichlorobenzene	<0.330
3,3-Dichlorobenzidine	<0.660
2,4-Dichlorophenol	<0.330
Diethylphthalate	<0.330
2,4-Dimethylphenol	<0.330
Dimethylphthalate	<0.330
Di-n-butylphthalate	<0.330
4,6-Dinitro-2-methylphenol	<1.600
2,4-Dinitrophenol	<1.600



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Client: GAIATECH, INC.

Project Number: 49175000

Sample ID:	WC-1 (Composite)
Date Taken:	01/17/05
Time Taken:	15:00
Lab Sample ID:	46762
BNA Compounds Method 3540C/8270C (ug/kg)	
Date of Analysis	01/24/05
2,4-Dinitrotoluene	<0.250
2,6-Dinitrotoluene	<0.260
Di-n-octylphthalate	<0.330
Fluoranthene	9.800
Fluorene	0.398
Hexachlorobenzene	<0.330
Hexachlorobutadiene	<0.330
Hexachlorocyclopentadiene	<0.330
Hexachloroethane	<0.330
Indeno[1,2,3-cd]pyrene	2.080
Isophorone	<0.330
2-Methylnaphthalene	<0.330
2-Methylphenol	<0.330
3&4-Methylphenol	<0.330
Naphthalene	0.543
2-Nitroaniline	<1.600
3-Nitroaniline	<1.600
4-Nitroaniline	<1.600
Nitrobenzene	<0.260
2-Nitrophenol	<1.600
4-Nitrophenol	<1.600
N-Nitrosodimethylamine	<0.330
N-Nitroso-di-n-propylamine	<0.330
n-Nitrosodiphenylamine	<0.330
Pentachlorophenol	<1.600
Phenanthrene	4.280
Phenol	<0.330
Pyrene	8.720
1,2,4-Trichlorobenzene	<0.330
2,4,5-Trichlorophenol	<0.330
2,4,6-Trichlorophenol	<0.330



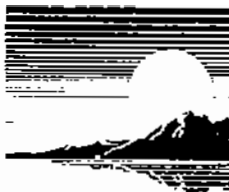
First Environmental Laboratories, Inc.

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IL ELAP / NELAC Accreditation # 100292

Client: GAIATECH, INC.

Project Number: 49175000

Sample ID:	WC-1 (Composite)
Date Taken:	01/17/05
Time Taken:	15:00
Lab Sample ID:	46762
PCBs Method 3540C/8082 (mg/kg)	
Date of Analysis	01/24/05
Aroclor 1016	<0.080
Aroclor 1221	<0.080
Aroclor 1232	<0.080
Aroclor 1242	<0.080
Aroclor 1248	<0.080
Aroclor 1254	<0.160
Aroclor 1260	<0.160
Pesticides Method 3540C/8081A (mg/kg)	
Date of Analysis	01/24/05
Aldrin	<0.0080
alpha-BHC	<0.0020
beta-BHC	<0.0080
delta-BHC	<0.0080
Lindane (gamma-BHC)	<0.0080
alpha-Chlordane	<0.080
gamma-Chlordane	<0.080
4,4'-DDD	<0.0160
4,4'-DDE	<0.0160
4,4'-DDT	<0.0160
Dieldrin	<0.0080
Endosulfan I	<0.0160
Endosulfan II	<0.0160
Endosulfan sulfate	<0.0160
Endrin	<0.0160
Endrin aldehyde	<0.0160
Endrin ketone	<0.0160
Heptachlor	<0.0080
Heptachlor epoxide	<0.0080
Methoxychlor	<0.080
Toxaphene	<0.160
Herbicides Method 8151 (mg/kg)	
Date of Analysis	01/22/05
2,4-D	<0.010
2,4,5-TP (Silvex)	<0.010



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Client: GAIATECH, INC.

Project Number: 49175000

Sample ID	WC-1 (Composite)
Date Taken	01/17/05
Time Taken	15:00
Lab Sample ID	46762
Metals Method 3050B/6010B (mg/kg)	
Mercury Method 7470A (mg/kg)	
Date of Metals Analysis	01/20/05
Date of Mercury Analysis	01/24/05
Arsenic	10.9
Barium	48.9
Cadmium	0.8
Chromium	9.2
Lead	704
Mercury	1.36
Selenium	<0.2
Silver	0.4
TCLP Metals - Method 1311/6010B (mg/L)	
Mercury Method 1311/7470A (mg/L)	
Date of Metals Analysis	01/21/05
Date of Mercury Analysis	01/24/05
TCLP - Arsenic	0.004
TCLP - Barium	<1.0
TCLP - Cadmium	0.004
TCLP - Chromium	0.003
TCLP - Lead	0.166
TCLP - Mercury	<0.0005
TCLP - Selenium	<0.002
TCLP - Silver	<0.001



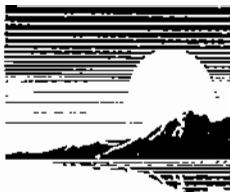
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Analytical Report

Client:	GAIATECH, INC.	Date Received:	01/19/05
Project ID:	49175000	Date Taken:	01/17/05
Sample Number:	46762	Time Taken:	15:00
Sample Description:	WC-1 (Composite)	Date Reported:	01/25/05
Lab File ID:	46762		

Analyte	Result	Units	Date Analyzed	Method
Cyanide, reactive	<10	mg/kg	01/21/05	7.3.3.2
Sulfide, reactive	<10	mg/kg	01/21/05	7.3.4.2
Phenols	<2.5	mg/kg	01/24/05	9065
Flash Point (open cup)	No Flash @	212°F	01/21/05	1010M
Paint Filter	Liquid Not Present		01/21/05	9095A
pH @ 25°C (1:10)	9.19	units	01/20/05	9045C



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GAIATECH, INC.

Project I.D.: 49175000

Sample #	Sample ID	% Total Solids
46762	WC-1 (Composite)	86.32



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IL ELAP / NELAC Accreditation # 100292

Analytical Report

Client:	GAIATECH, INC.	Date Received:	01/19/05
Project ID:	49175000	Date Taken:	01/17/05
Sample Number:	46762	Time Taken:	15:00
Sample Description:	WC-1 (Composite)	Date Reported:	01/25/05
Lab File ID:	46762		

Analyte	Result	Units	Flags
---------	--------	-------	-------

TCLP Volatile Organic Compounds Method 5030B/8260B

Analysis Date: 01/25/05

Benzene	< 0.050	mg/L
Methyl ethyl ketone (MEK)	< 0.100	mg/L
Carbon tetrachloride	< 0.050	mg/L
Chlorobenzene	< 0.050	mg/L
Chloroform	< 0.050	mg/L
1,2-Dichloroethane	< 0.050	mg/L
1,1-Dichloroethene	< 0.050	mg/L
Tetrachloroethene	< 0.050	mg/L
Trichloroethene	< 0.050	mg/L
Vinyl Chloride	< 0.100	mg/L

TCLP Base-Neutral/Acid Compounds Method 3510C/8270C

Analysis Date: 01/24/05

1,4-Dichlorobenzene	< 0.10	mg/L
2,4-Dinitrotoluene	< 0.10	mg/L
Hexachlorobenzene	< 0.10	mg/L
Hexachlorobutadiene	< 0.10	mg/L
Hexachloroethane	< 0.10	mg/L
o-Cresol	< 0.10	mg/L
m&p-Cresol	< 0.10	mg/L
Nitrobenzene	< 0.10	mg/L
Pentachlorophenol	< 0.50	mg/L
Pyridine	< 0.50	mg/L
2,4,5-Trichlorophenol	< 0.10	mg/L
2,4,6-Trichlorophenol	< 0.10	mg/L



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Analytical Report

Client: GALATECH, INC.
Project ID: 49175000
Sample Number: 46762
Sample Description: WC-1 (Composite)
Lab File ID: 46762

Date Received: 01/19/05
Date Taken: 01/17/05
Time Taken: 15:00
Date Reported: 01/25/05

Analyte	Result	Units	Flags
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TCLP Pesticides Method 3510C/8081A

Analysis Date: 01/24/05

Chlordane	< 0.005	mg/L	
Endrin	< 0.001	mg/L	
Heptachlor	< 0.005	mg/L	
Heptachlor Epoxide	< 0.005	mg/L	
Lindane	< 0.005	mg/L	
Methoxychlor	< 0.005	mg/L	
Toxaphene	< 0.01	mg/L	

TCLP Herbicides Method 8321A

Analysis Date: 01/24/05

2,4,-D	< 0.5	mg/L	
2,4,5-TP (Silvex)	< 0.5	mg/L	

HIGH RESOLUTION GAMMA SPECTROSCOPY
RSSI ANALYSIS TOTAL RADIUM (pCi/g)
345 EAST OHIO STREET
CHICAGO, ILLINOIS

RSSI Spectrum File No.	STS Sample No.	Ra-226 ⁽¹⁾	Ra-228 ⁽²⁾	Total Radium
043692	A-12	4.08	42.5	46.6
043691	P3-PG	4.05	15.9	20.0
043690	P1.G-RG	1.73	10.8	12.6

Notes:

(1) - Pb-214 used as surrogate for Ra-226

(2) - Ac-228 measured as surrogate for Ra-228

(3) - ND = below minimum detected activity

=====
 RSSI High Resolution Gamma Spectroscopy Analysis
 =====

Quantum Technology
 GDR_C Version 6.0
 =====

Sample ID : 043692 STS A-12 (C12)

 Sample Size 7.97e+002 g | Spectrum File . . H:\PCASPEC\043692.SPM
 Sampling Start. 00-00-00 00:00 | Counting Start. 12-16-04 13:07
 Sampling Stop 00-00-00 00:00 | Live Time 3600 Sec
 Current Date. 00-00-00 00:00 | Real Time 0 Sec

Detector #: 1

Energy(keV)= -3.42 + 0.246*Ch + 2.96e-009*Ch^2 + 0.00e+000*Ch^3 00-00-00 00:00

FWHM(keV) = 1.33 + 0.030*En + 0.00e+000*En^2 + 0.00e+000*En^3 00-00-00 00:00
 Where En = Sqrt(Energy in keV)

 Sensitivity 2.00 | Search Start / End. 0 / 8191
Sigma Multiplier. 1.00

PEAK SEARCH RESULTS

PK. #	ENERGY (keV)	ADDRESS CHANNEL	NET COUNTS	UN- CERTAINTY	C.L. COUNTS	BKG COUNTS	FWHM (keV)	FLAG
1	74.86	318.25	13285	266	483	14362	1.60	a
2	77.09	327.33	19318	289	514	15523	1.27	b
3	84.41	357.09	3158	238	479	11354	1.69	a
4	87.20	368.41	9030	245	458	12229	1.34	b
5	89.90	379.39	5999	201	359	10483	1.32	c
6	93.37	393.52	5450	251	480	14852	1.40	d
7	99.47	418.32	542	374	793	23592	1.30	e NET < CL
8	105.43	442.54	915	377	810	20100	1.34	f
9	115.17	482.12	1142	258	521	15761	1.14	
10	129.04	538.54	4555	298	593	19400	1.11	
11	154.02	640.07	2304	270	543	16317	1.15	
12	185.93	769.79	2236	251	503	13980	1.37	
13	209.15	864.21	7547	244	463	12455	1.30	
14	238.52	983.60	83675	358	432	9851	1.43	a
15	240.77	992.75	10303	191	324	7008	1.95	b
16	270.11	1112.05	6315	212	416	6889	1.46	a
17	277.30	1141.27	3406	248	516	8953	1.47	b
18	295.05	1213.44	3119	185	369	5927	1.54	a
19	299.88	1233.08	4934	189	369	5924	1.48	b
20	327.84	1346.72	4517	167	314	5191	1.44	
21	338.20	1388.85	17260	209	337	5470	1.43	
22	351.71	1443.78	5906	161	293	4327	1.40	
23	409.30	1677.90	2296	141	275	3788	1.34	
24	462.84	1895.55	4822	140	254	3090	1.48	
25	510.51	2089.34	8021	155	262	3308	1.55	
26	562.25	2299.70	825	112	225	2552	1.44	
27	583.03	2384.15	26767	202	247	2820	1.55	
28	609.16	2490.38	4148	130	236	2463	1.67	
29	727.14	2969.99	6047	127	209	2008	1.71	

30	755.15	3083.87	790	107	217	2011	1.63
31	763.28	3116.91	379	97	198	1808	1.64
32	772.24	3153.33	1059	94	184	1622	1.51
33	785.54	3207.40	628	95	192	1771	1.62
34	794.85	3245.23	3025	100	175	1354	1.69
35	830.52	3390.25	320	75	155	923	1.75 a
36	835.59	3410.88	1288	74	133	925	1.91 b
37	840.12	3429.27	674	76	151	880	1.79 c
38	860.44	3511.89	3223	92	150	1000	1.75
39	904.21	3689.80	342	85	178	1031	1.78 a
40	911.13	3717.94	18492	155	157	885	1.96 b
41	964.66	3935.55	3172	79	118	584	1.84 a
42	968.88	3952.69	10976	120	121	604	1.89 b
43	1078.95	4400.13	368	56	110	516	1.70
44	1094.47	4463.24	350	59	118	572	2.38
45	1120.45	4568.85	847	65	124	626	1.41
46	1238.63	5049.25	387	54	105	455	2.37
47	1460.06	5949.36	951	56	99	401	2.72
48	1495.88	6094.95	441	50	96	316	2.05 a
49	1501.51	6117.87	316	46	90	290	2.20 b
50	1580.58	6439.25 \	229	56	117	368	2.07 a
51	1588.09	6469.79	1467	54	79	277	2.06 b
52	1592.25	6486.69	910	46	72	203	2.48 c
53	1620.56	6601.78	572	54	102	442	1.80
54	1630.58	6642.50	756	52	93	341	1.92
55	1764.48	7186.78	696	51	92	324	1.73

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 RSSI High Resolution Gamma Spectroscopy Analysis

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 Quantum Technology
 GDR_C Background Subtract Results

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Sample ID : 043692 STS A-12 (Cl2)

Bkg File:h:\gdr\bkg\nocal.bkg | Counting Start. 12-16-04 13:07
ID:. NOCAL 24 Hour Background | Current Date 00-00-00 00:00

PK#	ENERGY (keV)	FWHM (keV)	OLD NET COUNTS	OLD UN- CERTAINTY	NEW NET COUNTS	NEW UN- CERTAINTY	FLAG
1	74.86	1.60	13285	266	13186	266	
3	84.41	1.69	3158	238	3133	238	
6	93.37	1.40	5450	251	5426	251	
12	185.93	1.37	2236	251	2201	251	
14	238.52	1.43	83675	358	83644	358	
18	295.05	1.54	3119	185	3101	185	
22	351.71	1.40	5906	161	5862	162	
25	510.51	1.55	8021	155	7926	155	
27	583.03	1.55	26767	202	26739	202	
28	609.16	1.67	4148	130	4101	130	
40	911.13	1.96	18492	155	18465	155	
42	968.88	1.89	10976	120	10960	120	
45	1120.45	1.41	847	65	828	65	
47	1460.06	2.72	951	56	765	56	
55	1764.48	1.73	696	51	675	51	

===== RSSI High Resolution Gamma Spectroscopy Analysis =====

Quantum Technology GDR_C Nuclide Activity Summary =====

Sample ID: 043692 STS A-12 (C12)

Sample Size 7.97e+002 g | Spectrum File . . H:\PCASPEC\043692.SPM
 Sampling Start.00-00-00 00:00 | Counting Start. 12-16-04 13:07
 Sampling Stop00-00-00 00:00 | Buildup Time. 0.00e+000 Hrs
 Current Date.00-00-00 00:00 | Decay Time [OFF]. 0.00e+000 Hrs

Efficiency File:h:\gdr\eff\500mar.eff | Library File. . . h:\gdr\lib\ra2nrg.lib
 ID.sn | ID.Ac-228 + Pb-214 key line

Eff.= 1/[7.40e-002*En^-2.40e+000 + 7.40e+001*En^9.80e-001] 02-23-04 17:00

Gamma Fraction Limit >= . . . 10.00 % | Decay Limit <= . . . 8.000 Halflives
 Library Energy Tolerance. . . 1.20

FINAL ACTIVITY REPORT

Nuclide	Energy (keV)	Conc +/- 1.00sigma (uCi/g)	Halflife (hrs)	Peaks Found
Pb-214	351.92	4.08e-006 +/-1.12e-007	4.47e-001	1 of 1
Ac-228	911.07	4.25e-005 +/-3.56e-007	6.13e+000	1 of 1
TOTAL:		4.66e-005 uCi/g		

UNKNOWN PEAKS

Energy (keV)	Centroid Channel	Net Counts	Un- Certainty	C.L. Counts	Bkg. Counts	FWHM (keV)	Net Gamma/sec
74.86	318.25	13186	266	483	14362	1.60	1.578e+002
77.09	327.33	19318	289	514	15523	1.27	2.185e+002
84.41	357.09	3133	238	479	11354	1.69	3.001e+001
87.20	368.41	9030	245	458	12229	1.34	8.177e+001
89.90	379.39	5999	201	359	10483	1.32	5.163e+001
93.37	393.52	5426	251	480	14852	1.40	4.395e+001
105.43	442.54	915	377	810	20100	1.34	6.236e+000
115.17	482.12	1142	258	521	15761	1.14	7.025e+000
129.04	538.54	4555	298	593	19400	1.11	2.534e+001
154.02	640.07	2304	270	543	16317	1.15	1.179e+001
185.93	769.79	2201	251	503	13980	1.37	1.126e+001
209.15	864.21	7547	244	463	12455	1.30	4.011e+001
238.52	983.60	83644	358	432	9851	1.43	4.756e+002
240.77	992.75	10303	191	324	7008	1.95	5.892e+001
270.11	1112.05	6315	212	416	6889	1.46	3.900e+001
277.30	1141.27	3406	248	516	8953	1.47	2.144e+001
295.05	1213.44	3101	185	369	5927	1.54	2.047e+001
299.88	1233.07	4934	189	369	5924	1.48	3.298e+001

327.84	1346.72	4517	167	314	5191	1.44	3.248e+001
338.20	1388.85	17260	209	337	5470	1.43	1.274e+002
409.30	1677.90	2296	141	275	3788	1.34	2.007e+001
462.84	1895.56	4822	140	254	3090	1.48	4.722e+001
510.51	2089.34	7926	155	262	3308	1.55	8.512e+001
562.25	2299.70	825	112	225	2552	1.44	9.713e+000
583.03	2384.15	26739	202	247	2820	1.55	3.259e+002
609.16	2490.38	4101	130	236	2463	1.67	5.214e+001
727.14	2969.99	6047	127	209	2008	1.71	9.123e+001
755.15	3083.87	790	107	217	2011	1.63	1.236e+001
763.28	3116.91	379	97	198	1808	1.64	5.993e+000
772.24	3153.33	1059	94	184	1622	1.51	1.694e+001
785.54	3207.40	628	95	192	1771	1.62	1.021e+001
794.85	3245.24	3025	100	175	1354	1.69	4.976e+001
830.52	3390.25	320	75	155	923	1.75	5.494e+000
835.59	3410.88	1288	74	133	925	1.91	2.224e+001
840.12	3429.27	674	76	151	880	1.79	1.170e+001
860.44	3511.89	3223	92	150	1000	1.75	5.727e+001
904.21	3689.80	342	85	178	1031	1.78	6.378e+000
964.66	3935.55	3172	79	118	584	1.84	6.301e+001
968.88	3952.69	10960	120	121	604	1.89	2.187e+002
1078.95	4400.13	368	56	110	516	1.70	8.156e+000
1094.47	4463.24	350	59	118	572	2.38	7.866e+000
1120.45	4568.85	828	65	124	626	1.41	1.904e+001
1238.63	5049.25	387	54	105	455	2.37	9.816e+000
1460.06	5949.36	765	56	99	401	2.72	2.279e+001
1495.88	6094.95	441	50	96	316	2.05	1.345e+001
1501.51	6117.87	316	46	90	290	2.20	9.677e+000
1580.58	6439.25	229	56	117	368	2.07	7.374e+000
1588.09	6469.79	1467	54	79	277	2.06	4.746e+001
1592.25	6486.69	910	46	72	203	2.48	2.951e+001
1620.56	6601.78	572	54	102	442	1.80	1.887e+001
1630.58	6642.50	756	52	93	341	1.92	2.510e+001
1764.48	7186.78	675	51	92	324	1.73	2.421e+001

===== RSSI High Resolution Gamma Spectroscopy Analysis =====

Quantum Technology
GDR_C Version 6.0

Sample ID : 043691 STS P3-PG (C5)

Sample Size 7.59e+002 g | Spectrum File . . h:\pcaspec\043691.spm
Sampling Start. 00-00-00 00:00 | Counting Start. 12-16-04 11:15
Sampling Stop 00-00-00 00:00 | Live Time 3600 Sec
Current Date. 00-00-00 00:00 | Real Time 0 Sec

Detector #: 1

Energy(keV)= -3.42 + 0.246*Ch + 2.96e-009*Ch^2 + 0.00e+000*Ch^3 00-00-00 00:00

FWHM(keV) = 1.33 + 0.030*En + 0.00e+000*En^2 + 0.00e+000*En^3 00-00-00 00:00

Where En = Sqrt(Energy in keV)

Sensitivity 2.00 | Search Start / End. 0 / 8191
Sigma Multiplier. 1.00 |

PEAK SEARCH RESULTS

PK. #	ENERGY (keV)	ADDRESS CHANNEL	NET COUNTS	UN- CERTAINTY	C.L. COUNTS	BKG COUNTS	FWHM (keV)	FLAG
1	74.81	318.07	5477	162	288	5594	1.55	a
2	77.05	327.16	7535	172	297	5820	1.27	b
3	87.15	368.23	2915	173	341	5694	1.34	a
4	90.04	379.98	1531	133	248	4700	1.29	b
5	93.36	393.46	1458	161	313	6350	1.40	c
6	99.54	418.61	333	238	507	8680	1.41	d NET < CL
7	105.25	441.80	660	159	318	6228	1.57	
8	128.92	538.05	1631	164	319	6622	1.20	
9	154.04	640.14	610	186	379	7553	1.41	
10	186.04	770.24	1504	156	307	5491	1.27	
11	209.17	864.30	2780	166	324	5516	1.36	
12	238.52	983.62	30203	218	271	3863	1.43	a
13	241.22	994.58	3809	126	222	3053	1.45	b
14	270.11	1112.03	2667	137	268	2778	1.54	a
15	277.24	1141.04	1369	158	330	3580	1.55	b
16	295.05	1213.44	3255	130	245	2526	1.47	a
17	299.94	1233.32	1834	117	226	2290	1.49	b
18	327.82	1346.66	1675	107	205	2108	1.52	
19	338.18	1388.78	6027	132	221	2354	1.33	
20	351.74	1443.90	5623	120	192	1936	1.39	
21	409.28	1677.80	843	100	201	1788	1.54	
22	462.77	1895.25	1788	88	162	1204	1.60	
23	510.50	2089.29	2943	101	179	1413	1.42	
24	562.47	2300.57	338	71	142	1012	1.84	
25	583.02	2384.10	9304	120	149	1070	1.56	
26	609.15	2490.32	4053	95	148	1012	1.60	
27	727.07	2969.72	2074	76	127	774	1.65	
28	754.93	3082.95	268	69	142	858	1.40	
29	768.19	3136.88	369	53	102	509	1.73	a

30	772.29	3153.55	426	51	96	472	2.06	b
31	785.66	3207.88	324	55	109	594	1.48	
32	794.78	3244.95	1060	64	116	576	1.73	
33	835.37	3409.96	276	51	100	525	1.40	
34	860.40	3511.71	1052	58	102	463	1.58	
35	911.11	3717.85	6625	95	102	442	1.76	
36	964.60	3935.31	1208	47	67	213	1.84	a
37	968.85	3952.57	3817	73	83	277	1.87	b
38	1078.65	4398.93	161	35	68	212	1.85	
39	1120.31	4568.28	817	49	83	290	1.92	
40	1237.97	5046.57	264	43	83	284	1.17	
41	1377.62	5614.26	212	36	70	208	2.19	
42	1460.56	5951.37	899	44	69	184	2.11	
43	1588.21	6470.26	507	38	66	162	2.02	a
44	1592.26	6486.72	276	29	50	115	2.42	b
45	1620.60	6601.95	205	35	68	182	2.12	
46	1630.54	6642.34	283	30	51	113	2.85	
47	1764.44	7186.61	699	40	62	154	2.02	

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RSSI High Resolution Gamma Spectroscopy Analysis

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Quantum Technology
GDR_C Background Subtract Results

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Sample ID : 043691 STS P3-PG (C5)

Bkg File:h:\gdr\bkg\nocal.bkg | Counting Start. 12-16-04 11:15
ID.: NOCAL 24 Hour Background | Current Date 00-00-00 00:00

PK#	ENERGY (keV)	FWHM (keV)	OLD NET COUNTS	OLD UN- CERTAINTY	NEW NET COUNTS	NEW UN- CERTAINTY	FLAG
1	74.81	1.55	5477	162	5383	162	
5	93.36	1.40	1458	161	1434	161	
10	186.04	1.27	1504	156	1469	156	
12	238.52	1.43	30203	218	30172	218	
16	295.05	1.47	3255	130	3238	130	
20	351.74	1.39	5623	120	5579	120	
23	510.50	1.42	2943	101	2848	101	
25	583.02	1.56	9304	120	9276	120	
26	609.15	1.60	4053	95	4006	95	
35	911.11	1.76	6625	95	6598	95	
37	968.85	1.87	3817	73	3801	73	
39	1120.31	1.92	817	49	798	49	
42	1460.56	2.11	899	44	713	44	
47	1764.44	2.02	699	40	678	40	

===== RSSI High Resolution Gamma Spectroscopy Analysis =====

Quantum Technology GDR_C Nuclide Activity Summary =====

Sample ID: 043691 STS P3-PG (C5)

Sample Size 7.59e+002 g | Spectrum File . . h:\pcaspec\043691.spm
 Sampling Start.00-00-00 00:00 | Counting Start. 12-16-04 11:15
 Sampling Stop00-00-00 00:00 | Buildup Time. 0.00e+000 Hrs
 Current Date.00-00-00 00:00 | Decay Time (OFF). 0.00e+000 Hrs

Efficiency File:h:\gdr\eff\500mar.eff | Library File. . . h:\gdr\lib\ra2nrg.lib
 ID.sn | ID.Ac-228 + Pb-214 key line

Eff.= 1/[7.40e-002*En^-2.40e+000 + 7.40e+001*En^9.80e-001] 02-23-04 17:00

Gamma Fraction Limit >= . . . 10.00 % | Decay Limit <=. . . . 8.000 Halflives
 Library Energy Tolerance. . . 1.20

FINAL ACTIVITY REPORT

Nuclide	Energy (keV)	Conc +/- 1.00sigma (uCi/g)	Half-life (hrs)	Peaks Found
Pb-214	351.92	4.08e-006 +/-8.75e-008	4.47e-001	1 of 1
Ac-228	911.07	1.59e-005 +/-2.29e-007	6.13e+000	1 of 1
TOTAL:		2.00e-005 uCi/g		

UNKNOWN PEAKS

Energy (keV)	Centroid Channel	Net Counts	Un- Certainty	C.L. Counts	Bkg. Counts	FWHM (keV)	Net Gamma/sec
74.81	318.07	5383	162	288	5594	1.55	6.449e+001
77.05	327.16	7535	172	297	5820	1.27	8.530e+001
87.15	368.23	2915	173	341	5694	1.34	2.642e+001
90.04	379.98	1531	133	248	4700	1.29	1.314e+001
93.36	393.46	1434	161	313	6350	1.40	1.162e+001
105.25	441.80	660	159	318	6228	1.57	4.508e+000
128.92	538.05	1631	164	319	6622	1.20	9.080e+000
154.04	640.15	610	186	379	7553	1.41	3.122e+000
186.04	770.24	1469	156	307	5491	1.27	7.519e+000
209.17	864.30	2780	166	324	5516	1.36	1.478e+001
238.52	983.62	30172	218	271	3863	1.43	1.716e+002
241.22	994.58	3809	126	222	3053	1.45	2.181e+001
270.11	1112.03	2667	137	268	2778	1.54	1.647e+001
277.24	1141.04	1369	158	330	3580	1.55	8.616e+000
295.05	1213.44	3238	130	245	2526	1.47	2.137e+001
299.94	1233.32	1834	117	226	2290	1.49	1.226e+001
327.82	1346.66	1675	107	205	2108	1.52	1.204e+001
338.18	1388.78	6027	132	221	2354	1.33	4.449e+001

409.28	1677.80	843	100	201	1788	1.54	7.368e+000
462.77	1895.25	1788	88	162	1204	1.60	1.751e+001
510.50	2089.29	2848	101	179	1413	1.42	3.058e+001
562.47	2300.57	338	71	142	1012	1.84	3.981e+000
583.02	2384.10	9276	120	149	1070	1.56	1.131e+002
609.15	2490.32	4006	95	148	1012	1.60	5.093e+001
727.07	2969.72	2074	76	127	774	1.65	3.129e+001
754.93	3082.95	268	69	142	858	1.40	4.193e+000
768.19	3136.88	369	53	102	509	1.73	5.872e+000
772.29	3153.55	426	51	96	472	2.06	6.814e+000
785.66	3207.88	324	55	109	594	1.48	5.270e+000
794.78	3244.95	1060	64	116	576	1.73	1.743e+001
835.37	3409.96	276	51	100	525	1.40	4.765e+000
860.40	3511.71	1052	58	102	463	1.58	1.869e+001
964.60	3935.31	1208	47	67	213	1.84	2.400e+001
968.85	3952.57	3801	73	83	277	1.87	7.583e+001
1078.65	4398.92	161	35	68	212	1.85	3.567e+000
1120.31	4568.28	798	49	83	290	1.92	1.835e+001
1237.97	5046.57	264	43	83	284	1.17	6.693e+000
1377.62	5614.26	212	36	70	208	2.19	5.967e+000
1460.56	5951.37	713	44	69	184	2.11	2.125e+001
1588.21	6470.26	507	38	66	162	2.02	1.640e+001
1592.26	6486.72	276	29	50	115	2.42	8.952e+000
1620.60	6601.94	205	35	68	182	2.12	6.765e+000
1630.54	6642.34	283	30	51	113	2.85	9.395e+000
1764.44	7186.61	678	40	62	154	2.02	2.432e+001

RSSI High Resolution Gamma Spectroscopy Analysis

Quantum Technology
GDR_C Version 6.0

Sample ID : 043690 STS P1.G-RG (C8)

Sample Size 9.36e+002 g | Spectrum File . . H:\PCASPEC\043690.SPM
Sampling Start.00-00-00 00:00 | Counting Start. 12-16-04 10:11
Sampling Stop00-00-00 00:00 | Live Time 3600 Sec
Current Date.00-00-00 00:00 | Real Time 0 Sec

Detector #: 1

Energy(keV)= -3.42 + 0.246*Ch + 2.96e-009*Ch^2 + 0.00e+000*Ch^3 00-00-00 00:00

FWHM(keV) = 1.33 + 0.030*En + 0.00e+000*En^2 + 0.00e+000*En^3 00-00-00 00:00
Where En = Sqrt(Energy in keV)

Sensitivity 2.00 | Search Start / End. 0 / 8191
Sigma Multiplier. 1.00 |

PEAK SEARCH RESULTS

PK. #	ENERGY (keV)	ADDRESS CHANNEL	NET COUNTS	UN- CERTAINTY	C.L. COUNTS	BKG COUNTS	FWHM (keV)	FLAG
1	74.79	317.99	3801	149	270	4918	1.38	a
2	77.07	327.26	6312	160	277	5072	1.27	b
3	84.40	357.04	854	150	304	4445	1.66	a
4	87.20	368.41	2785	141	263	4434	1.32	b
5	89.90	379.39	1832	116	207	3792	1.32	c
6	93.39	393.60	1755	158	307	5672	1.35	d
7	99.63	418.97	69	243	525	8160	1.30	e NET < CL
8	105.26	441.85	585	145	287	5369	1.43	
9	129.02	538.44	1590	191	386	7487	1.16	
10	154.02	640.06	524	164	332	6100	1.46	
11	186.19	770.88	998	152	304	5100	1.53	
12	209.21	864.46	2280	142	273	4332	1.22	
13	238.62	984.03	25074	201	256	3318	1.43	a
14	240.98	993.59	3461	124	221	2803	1.75	b
15	270.08	1111.91	2038	128	254	2508	1.57	a
16	277.31	1141.29	967	150	314	3247	1.46	b
17	295.12	1213.72	1458	118	235	2301	1.49	a
18	300.04	1233.72	1363	113	224	2171	1.48	b
19	327.92	1347.03	1287	101	195	1910	1.25	
20	338.19	1388.80	5228	117	191	1830	1.39	
21	351.75	1443.91	2964	99	171	1474	1.43	
22	409.24	1677.63	751	80	155	1214	1.66	
23	462.85	1895.57	1578	80	145	1008	1.57	
24	510.50	2089.29	2788	92	158	1100	1.53	
25	583.05	2384.22	7954	114	149	1024	1.58	
26	609.19	2490.50	2178	77	127	778	1.71	
27	727.16	2970.07	1816	70	115	633	1.78	
28	755.08	3083.57	264	58	116	620	1.24	
29	772.33	3153.71	276	55	108	564	1.31	

30	794.78	3244.96	912	56	99	452	1.51
31	835.56	3410.74	289	46	89	417	1.52
32	860.38	3511.66	918	51	85	336	1.38
33	911.07	3717.70	5557	85	85	317	1.69
34	964.62	3935.40	957	46	70	222	1.80 a
35	968.86	3952.62	3341	69	78	254	1.88 b
36	1120.19	4567.78	441	45	86	302	1.98
37	1238.05	5046.89	171	38	77	233	1.83
38	1460.57	5951.44	996	42	60	140	1.92
39	1495.89	6095.03	175	24	41	75	1.00
40	1587.97	6469.30	450	32	49	101	2.02 a
41	1592.37	6487.19	253	27	46	93	2.29 b
42	1620.70	6602.34	168	31	60	152	2.27
43	1630.59	6642.54	213	30	55	126	1.73
44	1764.47	7186.76	371	30	47	89	2.10

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RSSI High Resolution Gamma Spectroscopy Analysis

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Quantum Technology

GDR_C Background Subtract Results

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Sample ID : 043690 STS P1.G-RG (C8)

Bkg File:h:\gdr\bkg\nocal.bkg | Counting Start. 12-16-04 10:11

ID.: NOCAL 24 Hour Background | Current Date 00-00-00 00:00

PK#	ENERGY (keV)	FWHM (keV)	OLD NET COUNTS	OLD UN- CERTAINTY	NEW NET COUNTS	NEW UN- CERTAINTY	FLAG
1	74.79	1.38	3801	149	3714	149	
3	84.40	1.66	854	150	830	150	
6	93.39	1.35	1755	158	1732	158	
11	186.19	1.53	998	152	963	152	
13	238.62	1.43	25074	201	25042	201	
17	295.12	1.49	1458	118	1440	118	
21	351.75	1.43	2964	99	2920	99	
24	510.50	1.53	2788	92	2693	92	
25	583.05	1.58	7954	114	7926	114	
26	609.19	1.71	2178	77	2131	77	
33	911.07	1.69	5557	85	5530	85	
35	968.86	1.88	3341	69	3325	69	
36	1120.19	1.98	441	45	422	46	
38	1460.57	1.92	996	42	810	42	
44	1764.47	2.10	371	30	350	30	

===== RSSI High Resolution Gamma Spectroscopy Analysis =====

Quantum Technology GDR_C Nuclide Activity Summary =====

Sample ID: 043690 STS P1.G-RG (C8)

Sample Size 9.36e+002 g | Spectrum File . . H:\PCASPEC\043690.SPM
 Sampling Start. 00-00-00 00:00 | Counting Start. 12-16-04 10:11
 Sampling Stop 00-00-00 00:00 | Buildup Time. 0.00e+000 Hrs
 Current Date. 00-00-00 00:00 | Decay Time [OFF]. 0.00e+000 Hrs

Efficiency File:h:\gdr\eff\500mar.eff | Library File. . . h:\gdr\lib\ra2nrg.lib
 ID.sn | ID. Ac-228 + Pb-214 key line

Eff.= 1/[7.40e-002*En^-2.40e+000 + 7.40e+001*En^9.80e-001] 02-23-04 17:00

Gamma Fraction Limit >= . . . 10.00 % | Decay Limit <=. . . . 8.000 Halflives
 Library Energy Tolerance. . . 1.20

FINAL ACTIVITY REPORT

Nuclide	Energy (keV)	Conc +/- 1.00sigma (uCi/g)	Halflife (hrs)	Peaks Found
Pb-214	351.92	1.73e-006 +-5.88e-008	4.47e-001	1 of 1
Ac-228	911.07	1.08e-005 +-1.66e-007	6.13e+000	1 of 1
TOTAL:		1.26e-005 uCi/g		

UNKNOWN PEAKS

Energy (keV)	Centroid Channel	Net Counts	Un- Certainty	C.L. Counts	Bkg. Counts	FWHM (keV)	Net Gamma/sec
74.79	317.99	3714	149	270	4918	1.38	4.452e+001
77.07	327.26	6312	160	277	5072	1.27	7.141e+001
84.40	357.04	830	150	304	4445	1.66	7.952e+000
87.20	368.41	2785	141	263	4434	1.32	2.522e+001
89.90	379.39	1832	116	207	3792	1.32	1.577e+001
93.39	393.60	1732	158	307	5672	1.35	1.402e+001
105.26	441.85	585	145	287	5369	1.43	3.995e+000
129.02	538.44	1590	191	386	7487	1.16	8.847e+000
154.02	640.06	524	164	332	6100	1.46	2.682e+000
186.19	770.88	963	152	304	5100	1.53	4.930e+000
209.21	864.46	2280	142	273	4332	1.22	1.212e+001
238.62	984.03	25042	201	256	3318	1.43	1.424e+002
240.98	993.59	3461	124	221	2803	1.75	1.980e+001
270.08	1111.91	2038	128	254	2508	1.57	1.258e+001
277.31	1141.29	967	150	314	3247	1.46	6.087e+000
295.12	1213.72	1440	118	235	2301	1.49	9.505e+000
300.04	1233.72	1363	113	224	2171	1.48	9.115e+000
327.92	1347.04	1287	101	195	1910	1.25	9.255e+000

338.19	1388.80	5228	117	191	1830	1.39	3.859e+001
409.24	1677.63	751	80	155	1214	1.66	6.563e+000
462.85	1895.57	1578	80	145	1008	1.57	1.545e+001
510.50	2089.29	2693	92	158	1100	1.53	2.892e+001
583.05	2384.22	7926	114	149	1024	1.58	9.662e+001
609.19	2490.50	2131	77	127	778	1.71	2.709e+001
727.16	2970.07	1816	70	115	633	1.78	2.740e+001
755.08	3083.56	264	58	116	620	1.24	4.131e+000
772.33	3153.71	276	55	108	564	1.31	4.415e+000
794.78	3244.96	912	56	99	452	1.51	1.500e+001
835.56	3410.74	289	46	89	417	1.52	4.991e+000
860.38	3511.66	918	51	85	336	1.38	1.631e+001
964.62	3935.40	957	46	70	222	1.80	1.901e+001
968.86	3952.62	3325	69	78	254	1.88	6.633e+001
1120.19	4567.78	422	46	86	302	1.98	9.702e+000
1238.05	5046.89	171	38	77	233	1.83	4.335e+000
1460.57	5951.44	810	42	60	140	1.92	2.414e+001
1495.89	6095.03	175	24	41	75	1.00	5.339e+000
1587.97	6469.30	450	32	49	101	2.02	1.456e+001
1592.37	6487.19	253	27	46	93	2.29	8.206e+000
1620.70	6602.34	168	31	60	152	2.27	5.544e+000
1630.59	6642.54	213	30	55	126	1.73	7.071e+000
1764.47	7186.76	350	30	47	89	2.10	1.255e+001

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RSSI High Resolution Gamma Spectroscopy Analysis

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Quantum Technology

GDR_C Nuclide Activity Summary

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Sample ID: C43728 STS 25585XM A-12 6'0" 71%

Sample Size 8.25e+002 g | Spectrum File . . H:\PCASPEC\043728.SPM
 Sampling Start. 00-00-00 00:00 | Counting Start. 12-20-04 18:37
 Sampling Stop 00-00-00 00:00 | Buildup Time. 0.00e+000 Hrs
 Current Date. 00-00-00 00:00 | Decay Time [OFF]. 0.00e+000 Hrs

Efficiency File:h:\gdr\eff\500mar.eff | Library File. . . h:\gdr\lib\nuthk.lib
 ID.sn | ID. J & Th Natural Series + K

Eff.= 1/[7.40e-002*En^-2.40e+000 + 7.40e+001*En^9.80e-001] 02-23-04 17:00

Gamma Fraction Limit >= . . . 71.00 % | Decay Limit <= . . . 8.000 Halflives
 Library Energy Tolerance. . . 1.20

FINAL ACTIVITY REPORT

Nuclide	Energy (keV)	Conc +/- 1.00sigma (uCi/g)	Half-life (hrs)	Peaks Found
Pb-212	Average:	4.78e-007 +/-1.73e-008	1.06e+001	5 of 6
	74.82	4.78e-007 +/-1.25e-007		
	77.11	4.78e-007 +/-8.40e-008		
	87.30	4.14e-007 +/-1.48e-007		
	238.63	4.78e-007 +/-1.80e-008		
	300.09	5.72e-007 +/-1.85e-007		
Pb-214	Average:	6.58e-007 +/-1.78e-008	4.47e-001	5 of 7
	74.82	3.39e-007 +/-2.15e-007		
	77.11	6.35e-007 +/-1.45e-007		
	241.98	6.35e-007 +/-7.60e-008		
	295.21	7.33e-007 +/-3.60e-008		
	351.92	6.36e-007 +/-2.17e-008		
Ra-226	186.10	I.D.Only	1.40e+007	1 of 1
Ra-224	240.98	4.78e-007 +/-1.44e-007	8.69e+001	1 of 1
K-40	1460.80	8.39e-006 +/-2.35e-007	1.12e+013	1 of 1
TOTAL:		1.00e-005 uCi/g		

UNKNOWN PEAKS

Energy (keV)	Centroid Channel	Net Counts	Un-Certainty	C.L. Counts	Bkg. Counts	FWHM (keV)	Net Gamma/sec
92.94	391.76	490	86	165	1662	1.44	1.999e+000
338.13	1388.58	533	57	108	587	1.22	1.967e+000
510.51	2089.35	213	51	97	387	1.99	1.144e+000
582.95	2383.82	781	44	67	224	1.61	4.759e+000
609.10	2490.13	1253	51	74	261	1.48	7.954e+000

726.76	2953.46	175	32	60	183	1.48	1.319e+000
910.95	3717.24	504	37	60	158	1.51	4.734e+000
968.75	3952.19	242	34	62	176	1.24	2.414e+000
1120.09	4567.38	281	32	56	138	2.24	3.230e+000
1764.36	7186.29	236	21	28	32	1.60	4.232e+000

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RSSI High Resolution Gamma Spectroscopy Analysis

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Quantum Technology
GDR_C Version 6.0

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Sample ID : 043728 STS 25585XM A-12 6'0" 71%

Sample Size 8.25e+002 g | Spectrum File . . H:\PCASPEC\043728.SPM
Sampling Start. 00-00-00 00:00 | Counting Start. 12-20-04 18:37
Sampling Stop 00-00-00 00:00 | Live Time 7200 Sec
Current Date. 00-00-00 00:00 | Real Time 0 Sec

Detector #: 1

Energy(keV) = -3.42 + 0.246*Ch + 2.96e-009*Ch^2 + 0.00e+000*Ch^3 00-00-00 00:00

FWHM(keV) = 1.33 + 0.030*En + 0.00e+000*En^2 + 0.00e+000*En^3 00-00-00 00:00
Where En = Sqrt(Energy in keV)

Sensitivity 2.00 | Search Start / End. 0 / 8191
Sigma Multiplier. 1.00 |

PEAK SEARCH RESULTS

PX. #	ENERGY (keV)	ADDRESS CHANNEL	NET COUNTS	UN- CERTAINTY	C.L. COUNTS	BKG COUNTS	FWHM (keV)	FLAG
1	74.70	317.62	523	67	123	1205	1.27	a
2	77.03	327.08	855	81	152	1553	1.36	b
3	87.13	368.16	224	80	158	1840	0.83	
4	92.94	391.76	569	85	165	1662	1.44	
5	185.87	769.55	582	83	161	1514	1.25	
6	238.47	983.40	2351	86	146	1083	1.43	a
7	241.56	995.96	708	61	109	768	1.79	b
8	295.00	1213.23	1339	64	109	521	1.48	a
9	300.00	1233.55	178	58	118	576	1.48	b
10	338.13	1388.58	533	57	108	587	1.22	
11	351.69	1443.68	1981	64	94	487	1.40	
12	510.51	2089.35	402	50	97	387	1.99	
13	582.95	2383.82	838	43	67	224	1.61	
14	609.10	2490.13	1348	51	74	261	1.48	
15	726.76	2968.46	175	32	60	183	1.48	
16	910.95	3717.24	559	37	60	158	2.51	
17	968.75	3952.19	274	34	62	176	2.24	
18	1120.09	4567.38	319	32	56	138	2.24	
19	1460.65	5951.76	2205	51	42	70	1.98	
20	1764.36	7186.29	278	21	28	32	1.60	

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RSSI High Resolution Gamma Spectroscopy Analysis

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Quantum Technology
GDR_C Background Subtract Results

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Sample ID : 043728 STS 25585XM A-12 6.0" 71%

Bkg File:h:\gdr\bkg\nocal.bkg | Counting Start: 12-20-04 18:37
ID: NOCAL 24 Hour Background | Current Date 00-00-00 00:00

PK#	ENERGY (keV)	FWHM (keV)	OLD NET COUNTS	OLD UN- CERTAINTY	NEW NET COUNTS	NEW UN- CERTAINTY	FLAG
1	74.70	1.27	523	67	367	68	
4	92.94	1.44	569	85	490	86	
5	105.87	1.25	582	83	513	84	
6	238.47	1.43	2351	86	2291	86	
8	295.00	1.48	1339	64	1306	64	
11	351.69	1.40	1981	64	1892	64	
12	510.51	1.99	402	50	213	51	
13	582.95	1.61	838	43	781	44	
14	609.10	1.48	1348	51	1253	51	
16	910.95	1.51	559	37	504	37	
17	968.75	1.24	274	34	242	34	
18	1120.09	2.24	319	32	281	32	
19	1460.65	1.98	2205	51	1833	51	
20	1764.36	1.60	278	21	236	21	

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RSSI High Resolution Gamma Spectroscopy Analysis

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Quantum Technology

GDR_C Nuclide Activity Summary

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Sample ID: 043728 STS 25585XM A-12 6'0" 10%

Sample Size 8.25e+002 g | Spectrum File . . H:\PCASPEC\043728.SPM
 Sampling Start. 00-00-00 00:00 | Counting Start. 12-20-04 18:37
 Sampling Stop 00-00-00 00:00 | Buildup Time. 0.00e+000 Hrs
 Current Date. 00-00-00 00:00 | Decay Time (OFF). 0.00e+000 Hrs

Efficiency File:h:\gdr\eff\500mar.eff | Library File. . . h:\gdr\lib\nuthk.lib
 ID.sn | ID. U & Th Natural Series + K

Eff.= 1/[7.40e-002*En^-2.40e+000 + 7.40e+001*En^9.80e-001] 02-23-04 17:00

Gamma Fraction Limit >= . . . 10.00 % | Decay Limit <= 8.000 Halflives
 Library Energy Tolerance. . . 1.20

FINAL ACTIVITY REPORT

Nuclide	Energy (keV)	Conc +/- 1.00sigma (uCi/g)	Halflife (hrs)	Peaks Found
Bi-214	Average:	5.75e-007 +/-2.04e-008	3.32e-001	4 of 19
	609.31	5.64e-007 +/-2.31e-008		
	727.17	3.66e-007 +/-6.68e-008		
	1120.30	6.99e-007 +/-8.04e-008		
	1764.50	8.75e-007 +/-7.93e-008		
Th-234	Average:	1.70e-006 +/-3.01e-007	5.78e+002	2 of 3
	92.38	1.69e-006 +/-4.23e-007		
	92.80	1.71e-006 +/-4.29e-007		
Tl-208	Average:	1.84e-007 +/-1.01e-008	5.09e-002	2 of 9
	510.84	1.74e-007 +/-4.17e-008		
	583.14	1.85e-007 +/-1.04e-008		
Pb-212	Average:	4.78e-007 +/-1.73e-008	1.06e+001	5 of 6
	74.82	4.78e-007 +/-1.25e-007		
	77.11	4.78e-007 +/-8.40e-008		
	87.30	4.14e-007 +/-1.48e-007		
	238.63	4.78e-007 +/-1.80e-008		
	300.09	5.72e-007 +/-1.85e-007		
Pb-214	Average:	6.58e-007 +/-1.78e-008	4.47e-001	5 of 7
	74.82	3.39e-007 +/-2.15e-007		
	77.11	6.35e-007 +/-1.45e-007		
	241.98	6.35e-007 +/-7.60e-008		
	295.21	7.33e-007 +/-3.60e-008		
	351.92	6.36e-007 +/-2.17e-008		
Ac-228	Average:	5.44e-007 +/-3.04e-008	6.13e+000	4 of 17
	93.35	5.61e-007 +/-3.32e-007		
	338.32	5.67e-007 +/-6.08e-008		
	911.07	5.60e-007 +/-4.15e-008		
	969.11	4.76e-007 +/-6.68e-008		
Ra-226	186.10	I.D.Only	1.40e+007	1 of 1

Ra-224	240.98	4.78e-007	+1.44e-007	8.69e+001	1 of	1
K-40	1460.80	8.39e-006	+2.35e-007	1.12e+013	1 of	1

TOTAL: 1.30e-005 uCi/g

UNKNOWN PEAKS

Energy (keV)	Centroid Channel	Net Counts	Un- Certainty	C.L. Counts	Bkg. Counts	FWHM (keV)	Net Gamma/sec
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None

===== RSSI High Resolution Gamma Spectroscopy Analysis =====

Quantum Technology
GDR_C Version 6.0

Sample ID : STS P.1.3-PG VERIFY P#25585XM AREA - 4

Sample Size 7.80e+002 g | Spectrum File . . H:\PCASPEC\050241.SPM
Sampling Start.00-00-00 00:00 | Counting Start. 02-09-05 16:38
Sampling Stop00-00-00 00:00 | Live Time 3600 Sec
Current Date.00-00-00 00:00 | Real Time 0 Sec

Detector #: 1

Energy(keV)= -3.26 + 0.246*Ch +-1.64e-009*Ch^2 + 0.00e+000*Ch^3 00-00-00 00:00

FWHM(keV) = 1.33 + 0.030*En + 0.00e+000*En^2 + 0.00e+000*En^3 00-00-00 00:00
Where En = Sqrt(Energy in keV)

Sensitivity 2.00 | Search Start / End. 0 / 8191
Sigma Multiplier. 1.00 |

===== PEAK SEARCH RESULTS =====

PK. #	ENERGY (keV)	ADDRESS CHANNEL	NET COUNTS	UN- CERTAINTY	C.L. COUNTS	BKG COUNTS	FWHM (keV)	FLAG
1	74.85	318.15	990	74	131	1255	1.27	a
2	77.05	327.11	1331	81	144	1407	1.30	b
3	87.18	368.38	392	73	137	1588	1.11	
4	93.17	392.77	715	81	154	1536	1.59	
5	129.06	538.94	295	86	171	1794	1.12	
6	209.18	865.30	542	78	152	1346	1.36	
7	238.46	984.55	6148	99	124	883	1.43	a
8	240.73	993.80	1025	63	109	754	1.91	b
9	270.12	1113.51	525	67	133	812	1.33	
10	295.02	1214.92	508	68	134	746	1.49	a
11	299.90	1234.80	333	63	125	687	1.48	b
12	327.78	1348.34	323	51	99	540	1.70	
13	338.09	1390.35	1253	61	102	550	1.27	
14	351.74	1445.95	987	59	105	529	1.10	
15	462.80	1898.30	411	44	81	318	1.54	
16	510.56	2092.83	772	47	80	307	1.60	
17	582.95	2387.71	2127	57	70	246	1.67	
18	609.09	2494.17	758	44	70	238	1.33	
19	727.06	2974.66	475	37	63	180	1.83	
20	794.41	3248.99	260	32	57	152	2.13	
21	860.25	3517.17	261	28	49	104	1.37	
22	910.92	3723.57	1403	44	49	104	1.71	
23	964.42	3941.47	233	22	32	57	1.80	a
24	968.68	3958.85	896	37	45	84	2.03	b
25	1460.42	5961.85	763	30	27	28	2.01	
26	1763.89	7197.98	143	17	27	28	1.04	

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RSSI High Resolution Gamma Spectroscopy Analysis

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Quantum Technology

GDR_C Background Subtract Results

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Sample ID : STS P.1.3-PG VERIFY P#25585XM

Bkg File:h:\gdr\bkg\nocal.bkg | Counting Start. 02-09-05 16:38

ID: NOCAL 24 Hour Background | Current Date 00-00-00 00:00

PK#	ENERGY (keV)	FWHM (keV)	OLD NET COUNTS	OLD UN- CERTAINTY	NEW NET COUNTS	NEW UN- CERTAINTY	FLAG
1	74.85	1.27	990	74	903	74	
4	93.17	1.59	715	81	676	82	
7	238.46	1.43	6148	99	6118	99	
10	295.02	1.49	508	68	491	68	
14	351.74	1.10	987	59	943	60	
16	510.56	1.60	772	47	677	48	
17	582.95	1.67	2127	57	2099	57	
18	609.09	1.33	758	44	711	44	
22	910.92	1.71	1403	44	1376	44	
24	968.68	2.03	896	37	880	37	
25	1460.42	2.01	763	30	577	31	
26	1763.89	1.04	143	17	122	17	

===== RSSI High Resolution Gamma Spectroscopy Analysis =====

Quantum Technology GDR_C Nuclide Activity Summary =====

Sample ID: STS P.1.3-PG VERIFY P#25585XM

Sample Size 7.80e+002 g | Spectrum File . . H:\PCASPEC\050241.SPM
 Sampling Start. 00-00-00 00:00 | Counting Start. 02-09-05 16:38
 Sampling Stop 00-00-00 00:00 | Buildup Time. 0.00e+000 Hrs
 Current Date. 00-00-00 00:00 | Decay Time [OFF]. 0.00e+000 Hrs

Efficiency File:h:\gdr\eff\500mar.eff | Library File. . . H:\GDR\LIB\NUTHK.LIB
 ID.sn | ID. U & Th Natural Series + K

Eff.= 1/[7.40e-002*En^-2.40e+000 + 7.40e+001*En^9.80e-001] 02-23-04 17:00

Gamma Fraction Limit >= . . . 10.00 % | Decay Limit <= . . . 8.000 Halflives
 Library Energy Tolerance. . . 1.20

FINAL ACTIVITY REPORT

Nuclide	Energy (keV)	Conc +/- 1.00sigma (uCi/g)	Half-life (hrs)	Peaks Found
Bi-214	Average:	6.99e-007 +/-3.87e-008	3.32e-001	3 of 19
	609.31	6.77e-007 +/-4.16e-008		
	727.17	6.78e-007 +/-1.64e-007		
	1764.50	9.57e-007 +/-1.36e-007		
Bi-212	Average:	1.42e-006 +/-1.16e-007	1.01e+000	2 of 7
	727.00	1.42e-006 +/-1.63e-007		
	727.17	1.42e-006 +/-1.63e-007		
Th-234	Average:	2.87e-006 +/-6.00e-007	5.78e+002	2 of 3
	92.38	2.85e-006 +/-8.43e-007		
	92.80	2.89e-006 +/-8.54e-007		
Tl-208	Average:	1.07e-006 +/-2.66e-008	5.09e-002	4 of 9
	74.97	1.05e-006 +/-8.91e-007		
	510.84	1.17e-006 +/-8.23e-008		
	583.14	1.05e-006 +/-2.87e-008		
Pb-212	Average:	1.29e-006 +/-1.41e-007		
	860.37	2.67e-006 +/-4.15e-008	1.06e+001	5 of 6
	74.82	2.70e-006 +/-2.86e-007		
	77.11	2.70e-006 +/-1.76e-007		
	87.30	1.53e-006 +/-2.85e-007		
Pb-214	Average:	2.70e-006 +/-4.39e-008		
	238.63	2.70e-006 +/-4.39e-008		
	300.09	2.26e-006 +/-4.25e-007		
	Average:	6.47e-007 +/-3.71e-008	4.47e-001	4 of 7
	74.82	6.68e-007 +/-4.92e-007		
Ac-228	Average:	3.45e-007 +/-3.03e-007		
	77.11	3.45e-007 +/-3.03e-007		
	295.21	5.83e-007 +/-8.05e-008		
	351.92	6.70e-007 +/-4.24e-008		
	Average:	3.15e-006 +/-6.44e-008	6.13e+000	10 of 17
	93.35	3.24e-006 +/-6.60e-007		
	209.28	2.25e-006 +/-3.25e-007		

	270.23	3.12e-006	+-4.01e-007			
	327.64	2.51e-006	+-3.99e-007			
	338.32	2.82e-006	+-1.37e-007			
	463.00	3.15e-006	+-3.38e-007			
	794.70	3.20e-006	+-3.91e-007			
	911.07	3.23e-006	+-1.03e-007			
	964.60	3.08e-006	+-2.90e-007			
	969.11	3.66e-006	+-1.53e-007			
Ra-224	240.98	5.14e-006	+-3.15e-007	8.69e+001	1 of	1
K-40	1460.80	5.58e-006	+-2.96e-007	1.12e+013	1 of	1

TOTAL: 2.33e-005 uCi/g

UNKNOWN PEAKS

Energy (keV)	Centroid Channel	Net Counts	Un- Certainty	C.L. Counts	Bkg. Counts	FWHM (keV)	Net Gamma/sec
129.06	538.94	295	86	171	1794	1.12	1.641e+000

===== RSSI High Resolution Gamma Spectroscopy Analysis =====

Quantum Technology
GDR_C Version 6.0

Sample ID : STS P.1.3.-PG 16" P#25585XM AREA - 4

Sample Size 9.10e+002 g | Spectrum File . . H:\PCASPEC\050240.SPM
Sampling Start. 00-00-00 00:00 | Counting Start. 02-09-05 14:23
Sampling Stop 00-00-00 00:00 | Live Time 3600 Sec
Current Date. 00-00-00 00:00 | Real Time 0 Sec

Detector #: 1

Energy(keV)= -3.26 + 0.246*Ch + -1.64e-009*Ch^2 + 0.00e+000*Ch^3 00-00-00 00:00

FWHM(keV) = 1.33 + 0.030*En + 0.00e+000*En^2 + 0.00e+000*En^3 00-00-00 00:00
Where En = Sqrt(Energy in keV)

Sensitivity 2.00 | Search Start / End. 0 / 8191
Sigma Multiplier. 1.00 |

PEAK SEARCH RESULTS

PK. #	ENERGY (keV)	ADDRESS CHANNEL	NET COUNTS	UN- CERTAINTY	C.L. COUNTS	BKG COUNTS	FWHM (keV)	FLAG
1	74.79	317.91	3869	151	277	4856	1.85	a
2	77.09	327.28	6455	155	266	4628	1.27	b
3	84.44	357.21	1045	131	261	3519	1.50	a
4	87.17	368.32	2947	134	246	3827	1.46	b
5	89.84	379.22	2104	111	193	3311	1.29	c
6	93.25	393.11	2030	143	272	4739	1.53	d
7	99.42	418.22	343	239	515	7654	1.34	e NET < CL
8	105.30	442.18	657	139	275	4902	1.37	
9	129.06	538.96	1484	163	322	6020	1.37	
10	154.07	640.82	687	149	298	5178	1.76	
11	209.10	864.97	2369	138	262	3996	1.33	
12	238.48	984.64	26277	196	227	2737	1.43	a
13	240.91	994.54	3138	110	191	2228	1.64	b
14	270.09	1113.40	1600	122	245	2372	1.46	a
15	277.30	1142.73	921	150	316	3238	1.61	b
16	295.07	1215.11	910	110	223	2070	1.53	a
17	299.95	1234.98	1608	109	211	1944	1.48	b
18	327.84	1348.58	1306	93	177	1645	1.23	
19	338.19	1390.74	5352	120	199	1832	1.45	
20	351.80	1446.21	1483	89	166	1453	1.26	
21	409.28	1680.33	613	82	162	1320	1.24	
22	462.78	1898.24	1562	79	143	989	1.37	
23	510.47	2092.47	2635	88	149	1028	1.57	
24	562.33	2303.72	359	64	127	771	1.68	
25	583.00	2387.89	8293	109	122	748	1.51	
26	609.08	2494.13	1274	68	121	705	1.57	
27	727.11	2974.90	1853	68	109	571	1.61	
28	772.31	3159.00	302	51	99	491	1.50	
29	785.43	3212.44	201	53	106	568	1.26	

30	794.79	3250.55	939	55	96	428	1.83
31	835.35	3415.77	300	41	78	319	1.18
32	860.45	3518.01	979	51	85	321	1.23
33	911.06	3724.15	5671	85	81	292	1.72
34	964.65	3942.41	1000	46	69	211	1.91 a
35	968.81	3959.36	3271	67	74	230	1.87 b
36	1120.02	4575.27	239	38	73	225	2.03
37	1460.50	5962.17	1054	44	64	163	2.54
38	1587.80	6480.69	457	32	49	98	2.01 a
39	1592.06	6498.07	249	26	44	85	2.23 b
40	1620.47	6613.76	213	28	51	108	1.91
41	1630.43	6654.35	217	26	46	84	1.63
42	1764.18	7199.18	221	27	47	95	2.58

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RSSI High Resolution Gamma Spectroscopy Analysis

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Quantum Technology

GDR_C Background Subtract Results

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Sample ID : STS P.1.3.-PG 16" P#25585XM

Bkg File:h:\gdr\bkg\nocal.bkg | Counting Start. 02-09-05 14:23

ID.: NOCAL 24 Hour Background | Current Date 00-00-00 00:00

PK#	ENERGY (keV)	FWHM (keV)	OLD NET COUNTS	OLD UN- CERTAINTY	NEW NET COUNTS	NEW UN- CERTAINTY	FLAG
1	74.79	1.85	3869	151	3767	151	
3	84.44	1.50	1045	131	1021	131	
6	93.25	1.53	2030	143	2001	143	
12	238.48	1.43	26277	196	26247	196	
16	295.07	1.53	910	110	892	110	
20	351.80	1.26	1483	89	1439	89	
23	510.47	1.57	2635	88	2540	88	
25	583.00	1.51	8293	109	8265	109	
26	609.08	1.57	1274	68	1227	68	
33	911.06	1.72	5671	85	5644	85	
35	968.81	1.87	3271	67	3255	67	
36	1120.02	2.03	239	38	220	38	
37	1460.50	2.54	1054	44	868	45	
42	1764.18	2.58	221	27	200	27	

===== RSSI High Resolution Gamma Spectroscopy Analysis =====

Quantum Technology GDR_C Nuclide Activity Summary =====

Sample ID: STS P.1.3.-PG 16" P#25585XM

Sample Size 9.10e+002 g | Spectrum File . . H:\PCASPEC\050240.SPM
 Sampling Start. 00-00-00 00:00 | Counting Start. 02-09-05 14:23
 Sampling Stop 00-00-00 00:00 | Buildup Time. 0.00e+000 Hrs
 Current Date. 00-00-00 00:00 | Decay Time [OFF]. 0.00e+000 Hrs

Efficiency File:h:\gdr\eff\500mar.eff | Library File. . . H:\GDR\LIB\NUTHK.LIB
 ID.sn | ID. U & Th Natural Series + K

Eff.= 1/[7.40e-002*En^-2.40e+000 + 7.40e+001*En^9.80e-001] 02-23-04 17:00

Gamma Fraction Limit >= . . . 10.00 % | Decay Limit <= . . . 8.000 Halflives
 Library Energy Tolerance. . . 1.20

FINAL ACTIVITY REPORT

Nuclide	Energy (keV)	Conc +/- 1.00sigma (uCi/g)	Halflife (hrs)	Peaks Found
Bi-214	Average:	1.03e-006 +/-5.10e-008	3.32e-001	3 of 19
	609.31	1.00e-006 +/-5.59e-008		
	1120.30	9.92e-007 +/-1.71e-007		
	1764.50	1.34e-006 +/-1.81e-007		
Bi-212	Average:	6.98e-006 +/-2.45e-007	1.01e+000	3 of 7
	727.00	7.02e-006 +/-2.57e-007		
	785.00	4.93e-006 +/-1.30e-006		
	1620.60	7.59e-006 +/-1.01e-006		
Th-234	Average:	3.21e-006 +/-9.00e-007	5.78e+002	2 of 3
	92.38	3.18e-006 +/-1.26e-006		
	92.80	3.23e-006 +/-1.28e-006		
Tl-208	Average:	3.59e-006 +/-4.28e-008	5.09e-002	6 of 9
	74.97	3.55e-006 +/-1.57e-006		
	84.90	3.55e-006 +/-2.45e-006		
	277.35	2.54e-006 +/-4.14e-007		
	510.84	3.76e-006 +/-1.31e-007		
	583.14	3.55e-006 +/-4.67e-008		
	860.37	4.15e-006 +/-2.17e-007		
Pb-212	Average:	9.92e-006 +/-6.99e-008	1.06e+001	5 of 6
	74.82	9.93e-006 +/-5.04e-007		
	77.11	9.93e-006 +/-2.90e-007		
	87.30	9.87e-006 +/-4.48e-007		
	238.63	9.93e-006 +/-7.42e-008		
	300.09	9.37e-006 +/-6.33e-007		
Pb-214	Average:	8.83e-007 +/-4.78e-008	4.47e-001	5 of 7
	74.82	8.77e-007 +/-8.68e-007		
	77.11	8.77e-007 +/-4.99e-007		
	241.98	8.78e-007 +/-2.49e-007		
	295.21	9.08e-007 +/-1.12e-007		

	351.92	8.77e-007	+-5.45e-008			
Th-228	84.37	1.95e-005	+-3.07e-006	1.68e+004	1 of	2
Ac-228	Average:	1.08e-005	+-1.03e-007	6.13e+000	15 of	17
	89.95	2.53e-005	+-1.33e-006			
	93.35	1.14e-005	+-9.90e-007			
	209.28	8.44e-006	+-4.91e-007			
	270.23	8.15e-006	+-6.23e-007			
	327.64	8.69e-006	+-6.21e-007			
	338.32	1.03e-005	+-2.32e-007			
	409.51	7.47e-006	+-9.99e-007			
	463.00	1.03e-005	+-5.22e-007			
	772.17	9.26e-006	+-1.56e-006			
	794.70	9.91e-006	+-5.84e-007			
	835.50	8.79e-006	+-1.21e-006			
	911.07	1.14e-005	+-1.71e-007			
	964.60	1.13e-005	+-5.16e-007			
	969.11	1.16e-005	+-2.39e-007			
	1630.40	1.15e-005	+-1.39e-006			
Ra-224	240.98	1.18e-005	+-4.73e-007	8.69e+001	1 of	1
K-40	1460.80	7.20e-006	+-3.70e-007	1.12e+013	1 of	1

TOTAL: 7.50e-005 uCi/g

UNKNOWN PEAKS

Energy (keV)	Centroid Channel	Net Counts	Un- Certainty	C.L. Counts	Bkg. Counts	FWHM (keV)	Net Gamma/sec
105.30	442.18	657	139	275	4902	1.37	4.484e+000
129.06	538.96	1484	163	322	6020	1.37	8.255e+000
154.07	640.82	687	149	298	5178	1.76	3.516e+000
562.33	2303.72	359	64	127	771	1.68	4.227e+000
1587.80	6480.69	457	32	49	98	2.01	1.478e+001
1592.06	6498.07	249	26	44	85	2.23	8.075e+000

Appendix F

Calibration Logs and STS Field Screening Forms

Equipment Use and Calibration

The radiation screening used the following equipment:

- Ludlum 2221 Rate Meter-Scaler
- Ludlum 44-10 2 inch x 2 inch NaI Probe (shielded)
- Ludlum Model 3 Survey Meters with attached Pancake Probe

Prior to the start of fieldwork, the Ludlum 44-10 2 inch x 2 inch NaI Probe and the Ludlum 2221 Rate Meter-Scaler were calibrated at Kerr-McGee's Rare Earths Facility in West Chicago, Illinois. Each instrument was calibrated to an equivalent number of counts per minute to correspond to 7.1 pico curies per gram (pCi/g) as summarized below:

Instrument	Equivalent Counts per Minute		Equivalent to
	short cord	long cord	
Ludlum Model 2221/44-10 Probe	7319	6252	7.1 pCi/g

The instruments were calibrated to 7.1 pCi/g total radium, the USEPA's clean-up level. The instrument calibration was performed by Dumas Guerrier, Senior Environmental Technician with STS. Mr. Guerrier also conducted the field screening.

It should be noted that although STS calibrated the radiation screening equipment using a long probe cable (18 foot length) and short cable (6-foot length), most measurements were made using the short cable except where measurements were recorded along the walls/floor of deeper excavations (greater than 5-feet deep). Copies of the calibration records are included in Attachment A.

Radiation surveillance monitoring was performed during the excavation of several utility alignments (within the roadway on East Grand Avenue and adjacent sidewalk), excavation of test pits in areas of the caissons and grade beams, and excavation of planters within the sidewalk areas. The locations of these features are shown in Figure 1 (attached).

DAILY FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS' Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29CFR 1926 Subpart P.

Page: 1 of 2

Project: OGM Inspections Project No.: 25585 CM
 Location: 341 E Ohio St. Chicago IL Day/Time: Monday Dec 13, 04

Summary of technical and/or engineering services performed, including field test data. Locations, elevations and depth are estimated

Personnel : 1 JTS STAFF

Hours : Quarantined & Governed 12.5 Hours

Volume : 78 Tons

Area Worked : Poured @ the North Side of the property, Test pits for Carsons Excavation.

Excavating : Started At D-1 (C16) # of Carsons Continuation.
Excavated to 9.0' Natural sand @ 8' with Cinders fill. Above Natural
Sand, Reading @ 9000 CPM - than 7.2 R/f/g.
 — C-3 (C13) Bottom of Excavation At 9.0' Natural At 8.0' with Cinders
and Misc. fill above 8.0' Reading At 8000 CPM - than 7.2 R/f/g.
 — B-4 (C13) Bottom of Excavation at 8.5 feet Natural Sand @ 7.5 feet
with Cinders & Misc fill 8.5 feet. Reading At 14000 CPM - than 7.2 R/f/g -
at the upper 3 feet; North wall

— A-5 Grade Beams trenches North South direction 15' long
and 6' feet wide to 9 feet deep; Bottom @ 9.0' Natural Sand 10.8'
with Cinders clay fill above 8.0'; Reading @ 13500 CPM - than 7.2 R/f/g.

— B-6 (C-23) Bottom of Excavation at 9 feet Natural Sand @ 8'
with Cinders, clay + misc fill. Reading @ 13500 CPM inside wall - than 7.2 R/f/g.

☐ Field Test Data Is Estimated - Pending Final Laboratory Test Results

Field Representative _____
 Position _____
 Company _____

By: Quarantined & Governed
 Title: Environmental Specialist
 Material Testing Services, Inc.

DAILY FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS' Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29CFR 1926 Subpart P.

Page: 2 of 2

Project: OGM Surveys Project No.: 2558 PCM
Location: 301 E. Ohio Street Chicago Day/Time: Monday Dec 13, 04

Summary of technical and/or engineering services performed, including field test data. Locations, elevations and depth are estimated

Cont:

A-B (C15) Bottom of Excavation at 8.5 feet, Natural Sand @ 7.5 with Grinders
Clay fill above 7.5 feet, Reading @ 1300 CPM unsat'd - than 72 Pigs

A-10 (C13) Bottom of Excavation @ 8.5 feet with Natural Sand at 7.5
Grinders and Ince fill Above 7.5 feet, Reading @ 1300 CPM unsat'd = 72 Pigs

C-14.9 (C15) Bottom of Excavation at 8.5 feet, Natural Sand at 7.5 feet
with Grinders, clay fill above 7.5 feet Reading @ 1150 CPM unsat'd
- than 72 Pigs.

P1.1-F6 (C15) Bottom of Excavation @ 8 feet, Natural sand @ 7'6" with Grinders
fill above 7 feet Reading @ 730 CPM unsat'd.

P1-H.9 (C15) Bottom of Excavation @ 8 feet Natural Sand at 7'6" with Grinders
fill above 7 feet Reading @ 800 CPM unsat'd - than 72 Pigs.

A-11 to A9 Street pile Excavation at "A" line. Natural sand to 8 feet
with Grinders and Ince fill above 8 feet
Reading @ 1200 CPM unsat'd - than 72 Pigs.

Calibration : At 20,579 CPM unsat'd = 72 Pigs. and 7319 CPM sat'd = 72 Pigs.

Background : At 5900 CPM unsat'd, Short Core - than 72 Pigs.

Notes : All final Readings with Short Core unsat'd.

☐ Field Test Data is Estimated - Pending Final Laboratory Test Results

Field Representative _____

Position _____

Company _____

By [Signature]
Title Senior Test Technician

Material Testing Services, Inc.

DAILY FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS' Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29CFR 1926 Subpart P.

Page: 1 of 3

Project: OGM Excavations Project No.: 25525 CM
Location: 341 E Ohio Street Chicago IL Day/Time: Tuesday Dec 14 04

Summary of technical and/or engineering services performed, including field test data. Locations, elevations and depth are estimated

Personnel : 1 JTS STAFF

Hours : Duration of Service 12.5 hours

Mileage : 78 Miles

Wt used : 1 person in PPE

Area Worked : South End of Property lot BL for basements and street pile excavations.

Excavating : PA-P1 (29) Bottom of Excavation @ 8'0" Natural Sand @ 7'0" with Gravel and clay fill, Reading @ 8000 CPM < than 7.2 Pi/g5.
PB-P1 (29) Bottom of Excavation @ 7'5" Natural Sand @ 7'0" with Gravel and clay fill above 7'0" Reading @ 11,000 CPM unsatisfied < than 7.2 Pi/g5.
PC-P1 (29) Bottom of Excavation @ 9'0" Natural Sand @ 8'0" with Gravel and Bricks + misc fill above 8'0" Reading @ 10,000 CPM unsatisfied < than 7.2 Pi/g5.
PD-P1 (29) Bottom of Excavation @ 8'5" Natural Sand @ 7'5" with Gravel and Gravel + misc fill to 7'5" Reading @ 9000 CPM unsatisfied < than 7.2 Pi/g5.
PE-P1 (29) Bottom of Excavation @ 9'0" Natural Sand @ 8'5" with Gravel + Bricks + misc fill to 8'5" Reading @ 9000 CPM unsatisfied < than 7.2 Pi/g5.

☐ Field Test Data is Estimated - Pending Final Laboratory Test Results

Field Representative _____
Position _____
Company _____

By: [Signature]
Title: Excavation Superintendent
Material Testing Services, Inc.

DAILY FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS' Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29CFR 1926 Subpart P.

Page: 2 of 3

Project: 0614 Park Lane Project No.: 25585 CM
 Location: 311 E. Ohio Street Chicago IL Day/Time: Tuesday Dec 14, 04

Summary of technical and/or engineering services performed, including field test data. Locations, elevations and depth are estimated

Cont:

P1.5-P1 (C9) Bottom of Excavation @ 9'0" Natural Sand At 8'0" with Gravel
 Bricks and clay fill, Reading At 11000 CPM unsaturated < than 72 Pci/gf.

P1.5-P1 (C8A) Bottom of Excavation At 8'5" Natural Sand At 7'0" with
 Gravel, clay fill and Turf. Reading @ 11000 CPM unsaturated
 < than 72 Pci/gf.

P1.6-P1 (C8) Bottom of Excavation At 8'5" Natural Sand @ 7'5" with Gravel
 and Bricks, more fill above 7'5"
 Reading @ 7500 CPM unsaturated < than 72 Pci/gf.

Notes: At this location Encountered Impacted Material At 3'0"
 Below Grade and 3 feet North of the South Property Line.
 Reading At 12000 CPM Saturated > than 72 Pci/gf.

Reported finding to Jerry Jensen. At USEPA, I was
 advised to collect samples for analytical purposes.
 USEPA Arrived half hour later, witnesses my sampling pro-
 cedures, and advise us to remove the impacted material
 without having personnel air monitor in place, because area
 is so minute. Removed 42 yd of Soil and completely
 remove the impacted soil, final reading upon removal
 At 4500 CPM < than 72 Pci/gf. and Report to USEPA.

Notes: Upon Completion of all loading - Survey Bucket and
 Area within the Excavation All At < than 72 Pci/gf.
 Release Backhoe Bucket as clear. Including Ejectment
 and fill Excavation - Above / Below.

☐ Field Test Data is Estimated - Pending Final Laboratory Test Results

Field Representative _____
 Position _____
 Company _____

By: Richard J. Jensen
 Title: Environmental Specialist
 Material Testing Services, Inc.

DAILY FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS' Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29CFR 1926 Subpart P.

Page: 3 of 3

Project: DBM Inspections

Project No.: 25585217

Location: 341 E. Ohio St Chicago IL

Day/Time: Tuesday Dec 14, 04

Summary of technical and/or engineering services performed, including field test data. Locations, elevations and depth are estimated

Cont'

12.3-PB (Ch) Bottom of Excavation at 9.0 feet. Natural Sand at 8.0' wide
Gravel and Bricks per foot.
Reading at 1100 CPM < than 72 Pcf.

12.6-PB (Ch) Bottom of Excavation at 8.0' Natural Sand @ 7.5' wide
Cinders In and Insulators, Bricks, - Disc. per
Reading @ 1100 CPM < than 72 Pcf.

Notes

Calibration: At 20,219 CPM unsaturated and 739 CPM saturated = 72 Pcf.

Background: At 6000 CPM unsaturated Short Cord < than 72 Pcf
all final Reading with Short Cord unsaturated.

☐ Field Test Data is Estimated - Pending Final Laboratory Test Results

Field Representative _____

Position _____

Company _____

By [Signature]
 Title Environ Health Protection

Material Testing Services, Inc.

DAILY FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS' Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29CFR 1926 Subpart P.

Page: 1 of 2

Project: OGM Elevators Project No.: 95585000

Location: 341 E. Ohio St. Chicago IL Day/Time: Wednesday Dec 15, 04

Summary of technical and/or engineering services performed, including field test data. Locations, elevations and depth are estimated

Personnel: 1 MTS STAFF

Hours: duration of service 13.0 hrs

Package: 25 Tubs

Area located: Site for Excavation at the South Side of property and Drisan Test pit at the South End and Utility trench at the West End.

Excavating: 13-Pit (C5) Bottom of Excavation at 9.5 feet Natural Soil at 80°
Inspected Material Encountered at the South Wall Line (P6) at 2.5 feet
Below Grade. Reading at 2:00 am unobstructed < than 12 ft/15.
Consult BBFA, Larry Swann and Vanessa Simon, Arrived @ Site 1st hour
Order, Completed Area Sampling at their presence and using their
Equipment on their demand.
Severed Area until affected Area has been removed.

Note: Worked at the Sanitary Sewer trench, 12 feet East of P6 Line
From P3 to P7 Line.
Excavated to 8 feet Natural Soil at 7.5 feet with Sand + Gravel
fill to 7.5 feet.
Reading @ 11:00 am unobstructed < than 12 ft/15, upon completion
Backfill the Area with CATB for future Excavation.

☐ Field Test Data is Estimated - Pending Final Laboratory Test Results

Field Representative _____

Position _____

Company _____

By: James J. Swann
Title: Environmental Specialist

Material Testing Services, Inc.

DAILY FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS' Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29CFR 1926 Subpart P.

Page: 2 of 2

Project: OGM Envestours

Project No.: 355884 M

Location: 341 E. Ohio St Chicago IL

Day/Time: Wednesday Dec 15, 04

Summary of technical and/or engineering services performed, including field test data. Locations, elevations and depth are estimated

Cont'. P. 9-P6 Bottom of Excavation @ 8 feet, Natural Sand at 7'6" with Gravel
Soils: 4 Tusc. fill to 9'6"
Reading at 11,000 CPm unsaturated < than 72 Pci/ps.

A-12 Drilling Excavation, Encountered Impacted Material at 15 feet
Below Grade.

Impacted Material was expected at the vicinity, Report to CSEPA
Vaneta Simon and Larry Jensen, present at site within the hour.
Monitor the Area with A Rem Survey Equipment.

Have a Meeting between myself, Larry Jensen and CSEPA
Made a decision over to handle the Area with and Area
of 80K CPm far over 72 Pci/ps (saturated)
Collected Sample of the most Elevated zone within the Area
as far as we can Reach.

Specific Sample has been delivered to RSI Lab in
Houston Grove for Analysis.

B-14.1 Bottom of Excavation at 9'6" Natural Sand @ 8.5 feet, with
Gravel and clay fill, to 8.5 feet
Reading at 11,500 CPm unsaturated < than 72 Pci/ps.

Calibration: At 20,274 CPm unsaturated = 72 Pci/ps and 73,190 CPm saturated = 72 Pci/ps.

Background: At 6,100 CPm unsaturated Short Cord < than 7.2 Pci/ps.
Note: At final Readings with Short Cord unsaturated

☐ Field Test Data is Estimated - Pending Final Laboratory Test Results

Field Representative _____

Position _____

Company _____

By: [Signature] _____

Title: Environmental Specialist

Material Testing Services, Inc.

DAILY FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS' Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29CFR 1926 Subpart P.

Page: 1 of 1

Project: OGM Inspections Project No.: 255854M
Location: 341 E. OHIO ST. CHICAGO IL Day/Time: Tuesday Dec 16, 04

Summary of technical and/or engineering services performed, including field test data. Locations, elevations and depth are estimated

Personnel : 1 STS STAFF and 1 person from RST Laboratory

Hours : duration of inspection 12.0 hrs

Mileage : 78 miles

PE used : 2 person in PE

Area worked : Caisson for Pile P3-P6 (CE) Foundation wall South of P6 line, Utility trench west of P1 line

Inspected Area : Process of the removal of Inspected zone of P3-P6 (CE) Encountered at 25' Below Grade. Started with Reading At 2'000 CFM with hand set personal air monitor by RST. Set our Excavation zone at the perimeter. Hand dig the Inspected Soil into a Super Sack. 1/2 cubic yard has been removed. Upon removal Area Surveyed lowered to 5'000 CFM scheduled - Area 72' by 12' the Super sack has been transferred into the Inclose lined Containers. Located At Site, BETA has been contacted upon Completion.

Foundation wall : Survey a portion of the foundation wall South of P6 line Between P1 to P3 Excavation Bottom to 9 feet natural Sand Encountered At 8'0" with some sand lined/cinders Above 8 feet. Encountered Inspected Material Edge of P1-P6 Caisson, this area was knowned to be present during our previous work under the sidewalk. Secured with plywood and discries until Removal of the sidewalk.

☐ Field Test Data is Estimated - Pending Final Laboratory Test Results

Field Representative _____
Position _____
Company _____

By Dominick J. Suranin
Title Environmental Specialist

Material Testing Services, Inc.

DAILY FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS' Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29CFR 1926 Subpart P.

Page: 2 of 2

Project: OSM Surveys Project No.: 2558544
Location: 311 E. Ohio St. Chicago IL Day/Time: Tuesday Dec 16, 04

Summary of technical and/or engineering services performed, including field test data. Locations, elevations and depth are estimated

Cont.

: Reading at the suspected material at 10000 CFM unshielded > than 7.2 Pci/g.
Secured the Area

Utility Trench : West of P or Line 1 Survey Excavation from Line F to H Lines
Bottom of Excavation at 8.5 feet, Natural Sand at 7.5 feet, Survey Wall and
Bottom of final Reading with Short Cord unshielded.
Reading at 10000 CFM unshielded < than 7.2 Pci/g.
Continued with the utility trench west of Line 1 from A to F Lines.
Monitor wall and Bottom Reading at 7000 CFM unshielded Short Cord
< than 7.2 Pci/g.
Back filled with C&G upon Completion Area 8' deep by 8' wide.

Meeting Area : Excavate steel pile Area to be placed West of A' line Monitor and
Survey from Line 5 to Line 11, Cinders and Bricks & Misc. fill.
Reading at 13000 unshielded < than 7.2 Pci/g.
Natural sand at 6.5 feet.

Notes : During the Surveys the highest Reading obtained at the top 8.5 feet

Background : At 6100 CFM unshielded

Calibration : At 30379 CFM unshielded = 7.2 Pci/g and 7390 CFM unshielded = 7.2 Pci/g.

Equipment used : Ludlum 2221 with a 3x3 NPL Probe 40-10 Serial #174496

☐ Field Test Data is Estimated - Pending Final Laboratory Test Results

Field Representative _____
Position _____
Company _____

By James J. Sullivan
Title European Technical Specialist

Material Testing Services, Inc.

DAILY FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS' Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29CFR 1926 Subpart P.

Page: 1 of 1

Project: OGM Insulators Project No.: 25585CM

Location: 341 E. Ohio Street Chicago IL Day/Time: Friday Dec 17 04

Summary of technical and/or engineering services performed, including field test data. Locations, elevations and depth are estimated

Personnel: 1 STS STAFF

Hours: Shawanda F. Shawanda 11.5 Hrs

Miles: 78 Miles

Accessed: Utility trench at line 1 or 8 line and Shoring Excavation Unit at line 11.

Excavating: Proceed with Excavation utility trench from 11 to 16 line Survey the Soil Removal at the trench and stockpile walls and bottom

Utility Trench: Reading @ 8000 CPM unshielded - than 7.2 R/ys.
Backfilled trench with C.A.G and Soil Removal has been placed at the East End of the property for future work.

Shoring Excavation: Excavating along side of A line from 1 to 5 line - Monitor and Survey Excavation Bottom @ 6' and vertical @ 6 feet to 6.5 feet.
Reading at 7900 CPM unshielded - than 7.2 R/ys.

At the East End from line 11 to line 16 Encountered Concrete foundation to - 6 feet and Grade Beams unable to Survey Bottom to natural sand until side wall has been removed.
Reading at the upper 6 feet at 6100 CPM unshielded - than 7.2 R/ys.

Back Ground: At 5300 CPM unshielded

Calibration: At 20279 CPM unshielded = 7.2 R/ys. and 7319 CPM shielded = 7.2 R/ys.

☐ Field Test Data is Estimated - Pending Final Laboratory Test Results

Field Representative _____

Position _____

Company _____

By: Shawanda F. Shawanda
Title: Senior Project Specialist

Material Testing Services, Inc.

DAILY FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS' Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29CFR 1926 Subpart P.

Page: 1 of 1

Project: OGM Inversions

Project No.: 9558001

Location: 341 E. Ohio St. Chicago IL

Day/Time: Friday Dec 18 04

Summary of technical and/or engineering services performed, including field test data. Locations, elevations and depth are estimated

Personnel: MTS STAFF

Hours: Shirley J. Lusk, 4.00 Hrs

Work Completed: Completed daily report and Radiation field reading.

☐ Field Test Data is Estimated - Pending Final Laboratory Test Results

Field Representative _____

Position _____

Company _____

By Shirley J. Lusk

Title Environmental Specialist

Material Testing Services, Inc.

DAILY FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS' Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29CFR 1926 Subpart P.

Page: 1 of 1

Project: OGM Inspections

Project No.: 2555544

Location: 341 E. Ohio St. Chicago IL

Day/Time: Tuesday, Dec, 20, 04

Summary of technical and/or engineering services performed, including field test data. Locations, elevations and depth are estimated

Personnel : 150 Staff and 2 from USEPA, 1 from RSI laboratory

Hours : Quinn J. Sullivan 11.5 hrs

Trucking : 79 Tires

Area Worked : Completed Survey East portion and Removal of impacted material @ 1209 wall, Carson test P.E. #12

PE used : 2 persons in PE.

Excavating : Set Exclosure zone at (A12) located at "A" line, Survey of the 1209 side walk of the property.

Monitor & loading @ 80000 Cfm stirred, placed with the Survey during the removal, a total of 2 Super Sack have been loaded into the Container provided by Kerr McGee (USEPA)

Upon completion of the impacted material from Survey for the verification sample by USEPA.

One sample has been collected by Larry Jensen with the USEPA in the appropriate Container Sealed and delivered with an appropriate Chain of Custody to Rest lab in Norton Grove at the end of the workday.

Secured the Area until the Area is released by USEPA through the Correspondence.

Other Excavations : Proceed at line 15 from 13 to line 16. Removal of top surface.

☐ Field Test Data is Estimated - Pending Final Laboratory Test Results

Field Representative _____

Position _____

Company _____

By Quinn J. Sullivan
Title Environmental Specialist

Material Testing Services, Inc.

FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29 CFR 1926 Subpart P.

1 of 1

Project OSM Inspections
 Project No. 755852.17
 Location 321 E. Ohio St. Chicago
 Contractor _____

Report No. _____
 Day/Date Tuesday Dec 21 04
 Weather/Temp. _____
 Client Emtec

Project Competent Person per 29 CFR Part 1926 (Subpart P)

NAME: _____

FIRM: _____

ADDRESS: _____

PHONE: _____

Present on Site ☐ YES ☐ NO

Equipment

Rental ☒

Tolls \$ ☒

Parking \$ ☒

Mileage ☒

Project Preparation Time _____

Arrive Job 8:00

Depart Job 5:00

Total Hours on Job 9.0

Travel Time 0

TOTAL CHARGEABLE HOURS
 4 hour minimum
 8 hour minimum

9.0

Summary of sampling and testing services performed, including field test data. Locations, elevations and depth are estimated.

Completed Reports and paper work related to the job Completed Soil Tests and Gamma Radiation Reading. Highest readings collected during the survey.

Contacted RSC lab for laboratory results. Defined test results during our phone conversation with Eliffert, laboratory owner, went through results with Steve Tarden at the office.

Forward test results to Larry Burke and Veronica Simon at USEPA office downtown Chicago.

Paul to Larry Burke gave him a verbal on test result of the verification... Area of A-12. (Crisscross Plot)

☐ Field Test Data is Estimated - Pending Final Laboratory Test Results

Site Sketch: Indicate North

Field Representative _____

Position _____

Company _____

By [Signature]
 Title Emtec Representative
 MTS Representative

White - Office

White - Field

Yellow - Time Card

8/04 5K

Material Testing Services, Inc.

DAILY FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS' Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29CFR 1926 Subpart P.

Page: 1 of 1

Project: OGM Investigations Project No.: 25585CM
Location: 321 E. Ohio St. CHICAGO IL Day/Time: Wednesday Dec 22, 04

Summary of technical and/or engineering services performed, including field test data. Locations, elevations and depth are estimated

Personnel : 12TS STAFF

Hours : approximately 8.0 hrs

Truckage : 90 Miles

Area worked : Completed work @ the Casson test Pit A-12

Excavating : Proceed with the Removal of non-impacted material at a live Casson test pit where impacted was present. All impacted material has been removed and bagged into the waste container. Continued the excavation the natural sand layer to -85 feet below grade - Reading @ 14,000 CFM unsaturated (Start Card) = 7.2 lbf/g. Monitor soil removal at the impacted area perimeter. Surveyed clean. Material has been used to backfill the excavated area. Before doing so, set screen at the bottom and the rock ball along side the screen. Secured the area upon completion - Received Phase verification form, signed by URS and Amen with the USEPA officer.

Back ground : #6300 CFM unsaturated.

Calibration : At 20279 CFM unsaturated = 7.2 lbf/g and 7319 CFM unsaturated = 7.2 lbf/g.

Equipment : Ludlum 2221 with VAC²¹² 40-10 Probe with Serial # 170496

☐ Field Test Data is Estimated - Pending Final Laboratory Test Results

Field Representative _____
Position _____
Company _____

By [Signature]
Title Environmental Specialist
Material Testing Services, Inc.

DAILY FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS' Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29CFR 1926 Subpart P.

Page: 1 of 1

Project: OGW Inspections Project No.: 75585CM
Location: 341 E Ohio St. - CHICAGO IL. Day/Time: Monday, Dec. 27, 04

Summary of technical and/or engineering services performed, including field test data. Locations, elevations and depth are estimated

Personnel : 1 MTS STAFF

Hours : Approximate / Estimated 35 Hours

Volume : 175 Tons

Work Completed : Impacted Sample Material with High Crush Reading, has been picked up from RSSI Lab, following the Request By USEPA Material Had to be Returned to the Work Site and Stored in the Appropriate Containers provided by Ken McGee.
All samples have been deposited into the Containers and Sealed later.

Close fenced Area upon Completion.

☐ Field Test Data is Estimated - Pending Final Laboratory Test Results

Field Representative _____
Position _____
Company _____

By [Signature]
Title Senior Test Engineer

Material Testing Services, Inc.

DAILY FIELD REPORT

July 25, 70



MATERIAL
TESTING
SERVICES, INC.

NOTE: The responsibilities and authority of MTS and MTS' Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29CFR 1926 Subpart P.

Page: 1 of 1

Project: OGIM JAMES FOREST Project No.: 25585 & M
Location: 341 E. OHIO ST. CHICAGO IL. Day/Time: Wednesday January 05, 05

Summary of technical and/or engineering services performed, including field test data. Locations, elevations and depth are estimated

Personnel : 1 MTS STAFF

Hours : QUINCY F. LUCAS 10 HRS

Mileage : 45 Miles

PE used : 1 person in PE

Area worked : North Side Walk Removal, part of Impacted Area A-12

Excavating : Removal all the soil for the old permanent Guard Rail from line 1 to line 16. At A line monitor @ each Area with the Alpha probe. All readings were < than 7.2 RCF/g.

And followed by the removal of the existing side walk from line 1 to line 14. At A line, All the trees and the plants have been removed. Monitor the soil below concrete and release all concrete as clean material.

During the survey the reading varies from 8000 CPM to 14000 CPM unshielded < than 7.2 RCF/g.

At the perimeter North of A-12 Area where impacted soil has been removed and released by USEPA reading @ 10000 CPM unshielded < than 7.2 RCF/g.

Background : At 6300 CPM unshielded.

Calibration : At 20279 CPM unshielded = 7.2 RCF/g and at 7319 CPM shielded = 7.2 RCF/g.

Equipment used : Judson 2221 with NAL 2x2 Probe 10-10 Serial # 174096

☐ Field Test Data is Estimated - Pending Final Laboratory Test Results

Field Representative _____

Position _____

Company _____

By QUINCY F. LUCAS

Title Environmental Specialist

Material Testing Services, Inc.

DAILY FIELD REPORT



MATERIAL
TESTING
SERVICES, INC.

NOTE: The responsibilities and authority of MTS and MTS' Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29CFR 1926 Subpart P.

Page: 1 of 1

Project: OGM Lives Good Project No.: 25585AM

Location: 341 E. Ohio St. Chicago Illinois Day/Time: Thursday January 06, 05

Summary of technical and/or engineering services performed, including field test data. Locations, elevations and depth are estimated

Personnel : 1 MTS STAFF

Hours : Arrived on J. January 9. 00 hrs

Mileage : 75 Miles

Area Worked : No work has been completed All the Crews have been in Stand-By for utility changes @ the Side Walk Area where need to be excavated.

All decisions have been made by our client Larry Burke at Bartech Management.

☐ Field Test Data is Estimated - Pending Final Laboratory Test Results

Field Representative _____

Position _____

Company _____

By: [Signature]
Title: Senior Subcontractor

Material Testing Services, Inc.

DAILY FIELD REPORT



MATERIAL
TESTING
SERVICES, INC.

NOTE: The responsibilities and authority of MTS and MTS' Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29CFR 1926 Subpart P.

Page: 1 of 1

Project: OGM Inspections Project No.: 25585 KM

Location: 341 E. Ohio St. Chicago IL Day/Time: Friday January 07-05

Summary of technical and/or engineering services performed, including field test data. Locations, elevations and depth are estimated

Personnel : 4 GTS STAFF

Hours : QUANTAS (J. SERRIN) 4.5 HRS

Mileage : 45 Miles

Area Worked : Completed Soil Bait Removal @ the North East End of Construction Area.

Excavating : Monitor the Removal of last Portion of Curb from Line 14 to 16 Line
At A Line, Release all Concrete as clean spoil.

Monitor Material Beneath Curbless Down to dark Brown
Reading @ 12.000 CFM unsatisfied < than 7.2 ft/ps.

No Impacted Material has been Encountered within the Area.
Upon Completion, Be in Stand-By for Utility Changes.

Note : All Decisions have been made by Larry Burke of Gortech Management.

Background : 6300 CFM unsatisfied

Calibration : At 20379 CFM unsatisfied = 72 ft/ps and at 7319 CFM satisfied = 72 ft/ps.

Equipment used : Ludlum 2221 with NAL 2x2 Probe 40-10 Serial # 174496

☐ Field Test Data is Estimated -- Pending Final Laboratory Test Results

Field Representative _____

Position _____

Company _____

By: QUANTAS (J. SERRIN)

Title: Environment Health Specialist

Material Testing Services, Inc.

DAILY FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS' Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29CFR 1926 Subpart P.

Page: 1 of 2

Project: OGM Insulations

Project No.: 4585214

Location: 341 E. ONIO CHICAGO IL.

Day/Time: Monday January 10, 05

Summary of technical and/or engineering services performed, including field test data. Locations, elevations and depth are estimated

Personnel : 100% STAFF

Hours : Shawn F. Lincow 10.5 Hrs

Mileage : 0 Miles

Area Worked : North West Corner of Property Side Walk Removal.

Excavating : Proceed with the Excavation of Side Walk Area. North West Corner of Property from the West Corner. All Areas have Removed @ 16 Linear feet @ the time and Completed @ 18" lift throughout the Area. Survey the Walls and Bottom.

Monitor Around Existing Utilities and Hand Digged Area has been continuously Surveyed during the process - 110 Linear feet of Area has been Removed to full lift of 14' 0" wide. All Areas have been Monitored.

All Readings Collected @ 13000psi unsplit, except one Area 20 Linear feet from the West Property Line Elevated Reading @ 17000psi unsplit. For Consist of Base Cinders Gray to Brown within 3 feet from Grade.

All Readings Recorded are < than 72 R/hr. Freshly Set By USEPA.

☐ Field Test Data is Estimated - Pending Final Laboratory Test Results

Field Representative _____

Position _____

Company _____

By Shawn F. Lincow

Title Senior Rental Specialist

Material Testing Services, Inc.

DAILY FIELD REPORT



MATERIAL
TESTING
SERVICES, INC.

NOTE: The responsibilities and authority of MTS and MTS' Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29CFR 1926 Subpart P.

Page: 2 of 2

Project: OGW Successors

Project No.: 955854m

Location: 341 E. Ohio St. Chicago Ill. 60605

Day/Time: Monday, January 10, 05

Summary of technical and/or engineering services performed, including field test data. Locations, elevations and depth are estimated

Cont:

: Monitor stock pile before released or clear material, backfill the area excavated with spoil from the excavators.

Old City Electric Conduit fire pipe duct have been excavated and removed monitor shank and around the duct where ever it was possible.

All works have been completed under the supervision of Larry Burtie of Burtie Management.

Notes: All Readings have been completed with uncalibrated equipment

Background: AL 6200CPM uncalibrated

Calibration: AL 20,279CPM uncalibrated = 72 R/hg and 23,190CPM uncalibrated = 72 R/hg.

Equipment used: Latham 3221 6-1/2" dial 252 Probe 40-10 Serial # 174496

☐ Field Test Data is Estimated -- Pending Final Laboratory Test Results

Field Representative _____

Position _____

Company _____

By: Charles J. Harrison

Title: Environmental Specialist

Material Testing Services, Inc.

DAILY FIELD REPORT



MATERIAL
TESTING
SERVICES, INC.

NOTE: The responsibilities and authority of MTS and MTS' Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29CFR 1926 Subpart P.

Page: 1 of 2

Project: OGW Junctions Project No.: 955854N

Location: 341 E. Ohio St. Chicago Illinois Day/Time: Tuesday, January 11, 05

Summary of technical and/or engineering services performed, including field test data. Locations, elevations and depth are estimated

Personnel: MTS STAFF

Hours: Summary of Services 9.00 HRS

Mileage: 50 Miles

Area Worked: North East Portion of Side Walk Removal

Excavating: Worked with Excavation @ the North East End of Side Walk Port of Property Line. All the Areas have been removed by 18" lift and Surveyed Completed. 18" lift throughout the Area Monitor Bottom and walls and also Completed the work @ 15 feet at the time.

Bottom of the Excavation varies from 8 feet to 6.5 feet below Grade.

Monitor Around of the Existing Utilities and big Areas below. Utilities are known to be existed and Confirmed with a Search Rod made for the purpose.

Material Excavated Cinders and Ashes Brown to Gray + Gray. Material with the Greyish Color Reading @ 14000CFM UNSATURATED < than 7.2 Ppf/s. All the Material Sand Reading @ 7300CFM UNSATURATED < than 7.2 Ppf/s. All work of Soil Removal of the previous suspected Area of A-12 has been Monitor Carefully All Reading one < than 7.2 Ppf/s.

Area 14 feet before Roused on chain Material during Drilling the Excavated Area, A total of 85 feet has been Excavated 85 linear feet x 14 feet wide and 7.5 feet deep.

☐ Field Test Data is Estimated - Pending Final Laboratory Test Results

Field Representative _____

Position _____

Company _____

By: James J. Lisciani

Title: Environmental Specialist

Material Testing Services, Inc.

DAILY FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS' Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29CFR 1926 Subpart P.

Page: 2 of 2

Project: OGM Inspections Project No.: 258524

Location: 341 E. Ohio St. Chicago Illinois Day/Time: Tuesday January 11 05

Summary of technical and/or engineering services performed, including field test data. Locations, elevations and depth are estimated

Obs:

: Remaining Area to be Excavated, At the Corner of the Apt 106 and Area 13012' within the Utility Manhole and at the North East End, Where the Area need Be Extended five to 10 feet Beyond the Construction of the East driveway limit.

Note: Daily Calibration of Equipment with the Source, of Cesium 137, after 1 minute Counts and Averaging.

Back ground: At 6300 CPM was established

Calibration: At 20,279 CPM was established = 72 Pic/g, and 7319 CPM established = 72 Pic/g.

Equipment used: Ludlum 2221 with 542 VPL Probe #10 Serial #174496

☐ Field Test Data is Estimated - Pending Final Laboratory Test Results

Field Representative _____

Position _____

Company _____

By: [Signature]
Title: Environmental Specialist

Material Testing Services, Inc.

DAILY FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS' Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29CFR 1926 Subpart P.

Page: 1 of 1

Project: OGM Inspections Project No.: 25585 AM
Location: 341 E. Ohio St. Chicago IL. Day/Time: Wednesday January 12, 05

Summary of technical and/or engineering services performed, including field test data. Locations, elevations and depth are estimated

Personnel : 1675 STAFF

Hours : ANWARAS F. SUKRIEN 7:00 Hrs

Mileage : 50 Miles

Area Worked : Under Side Walk Removal, Eastern portion East of East Driveway and Middle Section @ Light Pole and Utility Duct.

Excavating : Completed on Area 110 feet from the West End of Side where Utility Duct and Manhole. Removed All Soil Around the Perimeter to the Natural Sand Reading at the Above Material Anders and Ashes 13,000 CPM unshielded - than 72 Rtg. and Material Glass fill Reading @ 8,000 CPM unshielded - than 72 Rtg. Natural Sand @ 6 feet from the Street before removed as Backfill for the same Area.

Moved over @ the East End of Construction Area East of the East proposed driveway, Saw Cut the Slab. Completed a five foot portion Slabs and Anders yellow Block and Area of light gray Reading @ 15,000 CPM unshielded - than 72 Rtg. Natural Sand @ 6.5 feet.

Therefore All Side Walk Removal, but curb line to be removed when time is appropriate.

Back Ground : 2950 CPM unshielded

Calibration : At 20,279 CPM unshielded = 72 Rtg and 7390 CPM unshielded = 72 Rtg.

Equipment used : Fudum 2221 with 2' x 2' Wd hole 40-10 Soil # 174496

☐ Field Test Data is Estimated - Pending Final Laboratory Test Results

Field Representative _____
Position _____
Company _____

By ANWARAS F. SUKRIEN
Title Environmental Specialist
Material Testing Services, Inc.

DAILY FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS' Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29CFR 1926 Subpart P.

Page: 1 of 1

Project: DEM Insulation

Project No.: 25385CM

Location: 241 E. Ohio St Chicago IL

Day/Time: Tuesday January 13 05

Summary of technical and/or engineering services performed, including field test data. Locations, elevations and depth are estimated

Personnel : 100% Staff

Hours : Duration of Service 3.5 Hrs

Mileage : 45 Miles

Area Worked: Arrived @ Job Site vicinity Received Call By Client That all
Work has been Suspended
This crew unable to do any Excavation on Ohio Street Area
Because of Weather Condition Arrived @ Site Work Area
Very unsafe Because Ruddy & Slippery Conditions.

☐ Field Test Data is Estimated - Pending Final Laboratory Test Results

Field Representative _____

Position _____

Company _____

By Richard J. Spencer

Title Engineering Specialist II

Material Testing Services, Inc.

White - Office White - Field Yellow - Time Card

DAILY FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS' Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29CFR 1926 Subpart P.

Page: 1 of 1

Project: OGM Elevators Project No.: 255854M

Location: 241 E. Ohio Street Chicago IL Day/Time: Friday January 14, 05

Summary of technical and/or engineering services performed, including field test data. Locations, elevations and depth are estimated

Personnel : MTS STAFF

Hours : ARRIVED 7:30 AM 3.5 HRS

Area Worked : Curb line of Ohio Street, North West Corner of Property

Excavating : Record with the City Electric, Removal of Light Pole and
Move over 7 feet EAST 20' East of Property Lines, Excavated to - 4 feet
Below Grade. Cinders to 5'0" Reading @ 14:00 CPM unsaturated & than 7.2 Bif/s

Completed Excavation for SBC line also East of West Corner
of property line, North of Curb line exposed existing SBC line
Monitor all Soil Removal to - 4 feet Reading @ 13:00 CPM unsaturated
& than 7.2 Bif/s.

Backfilled Excavated Area with CA-6 Requested By Client
Continued with the same Excavation Connected to the East going North
Toward the Center of Ohio St. Main sewer line, dead to be excavated
to - 9 feet Below Grade. Reading @ the end, bottom close to curb
line, @ 9:00 CPM unsaturated & than 7.2 Bif/s.

Note : Continuance of the same Excavation has been taking over by other
personnel of MTS Consultants.

Calibration : At 20,279 CPM unsaturated = 7.2 Bif/s and 7590 CPM saturated = 7.2 Bif/s.

Back Found : At 13:00 CPM unsaturated.

Equipment used : Sudham 2221 with 2'x2" DIAL Probe 40-10 Serial # 174496

☐ Field Test Data is Estimated - Pending Final Laboratory Test Results

Field Representative _____

Position _____

Company _____

By: Charles J. Sheehan

Title: Senior Field Engineer

Material Testing Services, Inc.

FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29 CFR 1926 Subpart P.

1 of 2

Project OGN Inspections
 Project No. 25585 KM
 Location 241 E. OHIO CHICAGO IL.
 Contractor TRC

Report No. _____
 Day/Date Monday January 17, 05
 Weather/Temp. Cold 10°F
 Client _____

Project Competent Person per 29 CFR Part 1926 (Subpart P)

NAME: _____
 FIRM: _____
 ADDRESS: _____
 PHONE: _____
 Present on Site ☐ YES ☐ NO

Equipment Rental 0 Arrive Job 9:30
 Tolls \$ 0 Depart Job 4:00
 Parking \$ 0 Total Hours on Job 6.5
 Mileage 60 Travel Time 1.5
 Project Preparation Time 1.0

TOTAL CHARGEABLE HOURS
 4 hour minimum
 8 hour minimum

9.0

Summary of sampling and testing services performed, including field test data. Locations, elevations and depth are estimated.

Personnel: MTS STAFF

Area Worked: Northwest Corner of Property, Port of the Rock Creek, placing utility trenches.

Excavating: Proceed At the Removal of Asphalt and Concrete over the Saw-Cut Area At the Sanitary Sewer, from the Rock Creek line to Seven Inlets to the Middle of Ohio Street.

Monitor Concrete forial At the over-section. Side. Reading @ 1300 CPM unsaturated & than 7.2 pps.

From Here Monitor All Soil Removal @ the Bucket @ 18" lift and also when dumped @ the unloading, surveyed clean. as we proceeded along. Reading @ 13,000 unsaturated & than 7.2 pps.

* ☐ Field Test Data is Estimated - Pending Final Laboratory Test Results

Site Sketch: Indicate North

Field Representative Yann Ben
 Position _____
 Company _____

By [Signature]
 Title Environmental Specialist
 MTS Representative

White - Office

White - Field

Yellow - Time Card

8/04 5K

Material Testing Services, Inc.

FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29 CFR 1926 Subpart P.

Page 2 of 2

Project OGW Law Enforcement Project No. 3558SCM
Location 341 E. Ohio St. Chicago IL Day/Date Tuesday January 17 05

Summary of sampling and testing services performed, including field test data. Locations, elevations and depth are estimated.

Core : Excavated along side of the utilities SBC's and Commonwealth Edison using long core for reading below 4 feet depth. unable to reach with the shot core equipment.

Also Reading At twice Back Ground has been collected At -3 feet Below Grade. Using shielded equipment @ the Confined Area Between the Edison line and the SBC, where readings collected @ 4000 CPM shielded, within the cinders layer very fine material Brown + dk Gray.

The top material combined of sand + cinders layer of clean beach silty fine sand @ -4 feet a layer of 3 feet of ashes and slags combined material sand encountered @ -8 feet

where reading @ 7100 CPM unshielded < than 7.2 R/15.

Notes : No impacted material has been found, elevated readings but < than 7.2 R/15.

Back Ground : At 6200 CPM unshielded.

Calibration : At 20,279 CPM unshielded = 7.2 R/15, and 7219 CPM shielded = 7.2 R/15.

Equipment : Ludlum 2221 with 2" x 2" NaI Probe, 40-10 3rd 174496

* - Field Test Data is Estimated - Pending Final Laboratory Test Results

Field Representative Joe Burt
Position _____
Company _____

By Michael J. Hecox
Title Environmental Operations
MTS Representative

White - Office

White - Field

Yellow - Time Card

10/04 2K

Material Testing Services, Inc.

FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29 CFR 1926 Subpart P.

0 of 2

Project OBAMA BRIDGE
 Project No. 25585 CM
 Location 341 E. ONTARIO STREET
 Contractor TRC

Report No. _____
 Day/Date Tuesday January 18 05
 Weather/Temp. Cold 15°F
 Client _____

Project Competent Person per 29 CFR Part 1926 (Subpart P)

NAME: _____
 FIRM: _____
 ADDRESS: _____
 PHONE: _____
 Present on Site ☒ YES ☐ NO

Equipment Rental 0
 Tolls \$ 0
 Parking \$ 0
 Mileage 50
 Project Preparation Time 1.0

Arrive Job 9:30
 Depart Job 4:00
 Total Hours on Job 6:15
 Travel Time 1.5

TOTAL CHARGEABLE HOURS
 4 hour minimum
 8 hour minimum

9.00

Summary of sampling and testing services performed, including field test data. Locations, elevations and depth are estimated.

Personnel : 100% STAFF

Area Worked : WORK COMPLETED @ NORTH WEST CORNER OF THE PROPERTY, NORTH OF WESTLY CREEK GAS LINE AND SANITARY SEWER EXCAVATION.

Excavating : PROCEED @ THE REMOVAL OF ASPHALT AND CONCRETE SLAB @ THE GAS LINE EXCAVATION AREA, SURVEYED BOTTOM OF CONCRETE BEFORE RELOADED AS ABOVE. SPILL READING @ BACKGROUND AT 5900 CPM UNSHIELDED. REMOVAL OF CRUSHED STONE OVER THE AREA, NORTH PORTION OF SANITARY SEWER, MONITOR SOL. IN THE DUCKT. AND WITH A LONG COAL UNSHIELDED READING @ 12,000 CPM UNSHIELDED @ THE TOP 5 FEET. CINDER ASHES AND PURE FILL.

* ☐ Field Test Data is Estimated - Pending Final Laboratory Test Results

Site Sketch: Indicate North

Field Representative John B. [Signature]
 Position _____
 Company _____

By [Signature]
 Title Environ Mental Specialist
 MTS Representative

White - Office

White - Field

Yellow - Time Card

B/04 5K

Material Testing Services, Inc.

FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29 CFR 1926 Subpart P.

Page 2 of 2

Project DEM SINKHOUS Project No. 25525214

Location 301 E. OHIO ST. - CLEVELAND Day/Date Tuesday January 18 05

Summary of sampling and testing services performed, including field test data. Locations, elevations and depth are estimated.

Cont' : Bottom of Sanitary Sewer Reached to 8.5 feet Natural Sand with
Reading @ 7500 CPM unshielded = than 72 R/h.

Proceed with the Gas line Excavation @ the South End of the
Excavation Monitor the Material through the Bucket and @ Surface.
By 18" lift Consisted of Anders Layer of Ashes @ .5 feet with
Silty clay bel. @ - 7.5' Natural Sand @ 8 feet Reading
@ 6100 CPM unshielded = than 72 R/h.

Excavating Between various Existing Utilities Com Ed.
ABC @ Different Elevations All Measurements Have been Completed
By Client,

Monitor Around Existing Utilities with long Cord @ either Side
of the Utilities Reading @ 13000 CPM unshielded = than 72 R/h.

Notes : No Impacted Material has been Encountered.

Background : At 5600 CPM unshielded.

Calibration : At 20,279 CPM unshielded = 72 R/h and 72,900 CPM shielded = 72 R/h.

Equipment : Ludlum 5021 with 5" x 2" DAP Base 10-10 S# 176496

* Field Test Data is Estimated - Pending Final Laboratory Test Results

Field Representative _____

Position _____

Company _____

By Lawrence J. DeGroot

Title Senior Health Specialist

MTS Representative

White - Office

White - Field

Yellow - Time Card

10/04 2K

Material Testing Services, Inc.

FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29 CFR 1926 Subpart P.

1 of 2

Project DEM Excavations

Report No. _____

Project No. 25585417

Day/Date Wednesday January 19 05

Location 341 E. Ohio St. Chicago IL

Weather/Temp. Partly Sunny 35°F

Contractor TRF

Client _____

Project Competent Person per 29 CFR Part 1926 (Subpart P)

NAME: _____

FIRM: _____

ADDRESS: _____

PHONE: _____

Present on Site ☒ YES ☐ NO

Equipment Rental 0

Tolls \$ 0

Parking \$ 0

Mileage 50

Project Preparation Time 10

Arrive Job 9:30

Depart Job 3:30

Total Hours on Job 6.0

Travel Time 15

TOTAL CHARGEABLE HOURS
4 hour minimum
8 hour minimum

8.5

Summary of sampling and testing services performed, including field test data. Locations, elevations and depth are estimated.

Personnel: MTS Staff

Area Worked: North West Corner of Property line North of the North Curve.

Excavating: Proceed with the Gas line Excavation Monitor the middle half of the area excavated to - 9 feet. When Sand and Ashes feel has been encountered, Natural Sand @ - 7.5 feet. Reading @ 1000 CPM with less than 7.2 Rife in the top 6 feet and 7000 CPM with less than 7.2 Rife. At the bottom, Natural Sand, Brown. Using long cord probe during the survey. Below 5 feet, Survey Bottom and walls.

☐ Field Test Data is Estimated Pending Final Laboratory Test Results

Site Sketch: Indicate North

Field Representative Jim Burt

Position _____

Company _____

By Demetrius J. Linneman

Title Union County Specialist

MTS Representative

White - Office

White - Field

Yellow - Time Card

8/04 5K

Material Testing Services, Inc.

FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29 CFR 1926 Subpart P.

Page 2 of 2

Project 06114 Inverness Project No. 25585CM
Location 301 E Ohio St. Chicago IL Day/Date Wednesday January 19, 05

Summary of sampling and testing services performed, including field test data. Locations, elevations and depth are estimated.

Cont: : The North portion of the Gas Line Excavation need to Be Completed At the Appropriate time.

Hand over to the Street Drainage Excavation, removed Concrete Slab Monitor Reading @ 590CPM unsaturated = 72 RCFs. Monitor the first lift and followed by Bucket and full Summary Reading @ 1100 CPM unsaturated = 72 RCFs. Below Sand layer with Ashes Gray to Dark Gray with a layer of silty clay fill to -17' followed by Natural Sand Reading @ 700 CPM unsaturated = 72 RCFs.

Completed the Investigation of the Excavation, Existing Utilities within the trench, ComEd, and different GBC lines within 8" to 40" Below Grade.

Notes : Calibrate Equipment with a Quinn-137 Source daily during the Evening. Check for Constant Zero Count and Averaging the Reading.

Background : At 590CPM unsaturated -

Calibration : At 20079CPM unsaturated = 72 RCFs and 739CPM saturated = 72 RCFs.

Equipment : Ludlum 2221 with 2" x 2" Val probe HO-10 Serial # 174496

* Field Test Data is Estimated - Pending Final Laboratory Test Results

Field Representative _____
Position _____
Company _____

By Donna Routh
Title Donna Routh
MTS Representative

FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29 CFR 1926 Subpart P.

1 of 2

Project OGM Investigations

Report No. _____

Project No. 255854M

Day/Date Thursday January 30, 05

Location 341 E. Ohio Street Chicago IL

Weather/Temp. 75°F Snowy

Contractor TRI

Client _____

Project Competent Person per 29 CFR Part 1926 (Subpart P)

NAME: _____

FIRM: _____

ADDRESS: _____

PHONE: _____

Present on Site ☐ YES ☐ NO

Equipment Rental 0

Arrive Job 9:30

Tolls \$ 0

Depart Job 4:30

Parking \$ 0

Total Hours on Job 7.0

Mileage 50

Travel Time 0.5

Project Preparation Time 1.0

TOTAL CHARGEABLE HOURS
4 hour minimum
8 hour minimum

8.5

Summary of sampling and testing services performed, including field test data. Locations, elevations and depth are estimated.

Personnel : MTS STAFF

Area Worked : Utility Excavations @ the North West Corner of Property

Excavating : Continued @ the Excavations for the Storm Sewer Area and Removed the old Street Lighting poles Survey Bottom of Curb upon Removal of Concrete
Part of Curb line Excavated to -9 feet Reading @ 900 CM inside Mark
as Read 7.2 Rigs.

Completed the North End of the Storm Sewer to the Middle Lane of Ohio
Street top 4.5 Cinders mixed with Brown Sand with a layer of Ashes
at -17 feet Reading @ 7500 CM inside Mark as Read 7.2 Rigs.

Back filled with Crushed limestone upon final Survey.

☐ Field Test Data is Estimated / Pending Final Laboratory Test Results

Site Sketch: Indicate North

Field Representative Yume Bell

Position _____

Company _____

By Edward J. Lawrence

Title Environmental Specialist

MTS Representative

White - Office

White - Field

Yellow - Time Card

8/04 SK

Material Testing Services, Inc.

FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29 CFR 1926 Subpart P.

Page 2 of 2

Project ORM Investigations Project No. 265852M
Location 361 E. Ohio Street, CHICAGO IL Day/Date Tuesday, January 30, 05

Summary of sampling and testing services performed, including field test data. Locations, elevations and depth are estimated.

Cont.: Monitor Stock pile of Spoil Before Release as clean Material. All Spoil Removed during the Excavation has been Stored @ the Construction Site for proper disposal.

Proceed at the Water Line Excavation, Removal of Asphalt and Concrete Slab from the the South Corner onto to the Center of Ohio Street, Monitor the overburden Soil and Below Concrete Slab - Reading @ 6.500 CPM, 0.000 H₂O and 7.2 R₂/g₅.
Concrete Spoil Stored @ Construction Site for proper disposal.

Probe : Calibrated Geiger unit, using Cesium 137 Minutes Counts Averaging

Background : At 5200 CPM unsaturated

Calibration : 20279 CPM unsaturated = 7.2 R₂/g₅ and 7319 CPM saturated = 7.2 R₂/g₅.

Instrument : Ludlum 2221 with 2"x2" VDL Probe 40-10 Jst 174496

* Field Test Data is Estimated - Pending Final Laboratory Test Results

Field Representative _____
Position _____
Company _____

By Christopher J. Lawrence
Title Environmental Specialist
MTS Representative

White - Office

White - Field

Yellow - Time Card

1004 2K

Material Testing Services, Inc.

FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29 CFR 1926 Subpart P.

1 of 1

Project OGM Insulators
 Project No. 255852M
 Location 311 E. Ohio Street Chicago Illinois
 Contractor TRI

Report No. _____
 Day/Date Tuesday January 24, 05
 Weather/Temp. Partly Sunny Cold 25°F
 Client _____

Project Competent Person per 29 CFR Part 1926 (Subpart P)
 NAME: _____
 FIRM: _____
 ADDRESS: _____
 PHONE: _____
 Present on Site ☒ YES ☐ NO

Equipment Rental 0
 Tolls \$ 0
 Parking \$ 0
 Mileage 45
 Project Preparation Time 15
 Arrive Job 9:30
 Depart Job 3:30
 Total Hours on Job 6.0
 Travel Time 15

TOTAL CHARGEABLE HOURS
 4 hour minimum
 8 hour minimum

8.0

Summary of sampling and testing services performed, including field test data. Locations, elevations and depth are estimated.

Personnel: 1055 STAFF

Area worked: Removal of Crushed Stone at the previously tested Excavation, all Crushed Stone had to be removed according to the Department of Transportation and be replaced by 9" of Quick Set Concrete to the Grade level.
Stand-By for the decision to be made by Client and TRI, finally decided not to do any further Excavation for the day.
Clean up the Street Work Area and secured the freshly poured Concrete

* ☐ Field Test Data is Estimated - Pending Final Laboratory Test Results

Site Sketch: Indicate North

Field Representative _____
 Position _____
 Company _____

By Quinn A. J. Spencer
 Title Executive Health Specialist
 MTS Representative

White - Office

White - Field

Yellow - Time Card

8/04 SK

Material Testing Services, Inc.

FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29 CFR 1926 Subpart P.

1 of 2

Project OGW Inversion
 Project No. 25585 TM
 Location 341 E. Ohio St. Chicago IL
 Contractor TRE

Report No. _____
 Day/Date Tuesday, January 24, 05
 Weather/Temp. Partly Sunny 30°F
 Client _____

Project Competent Person per 29 CFR Part 1926 (Subpart P)

NAME: _____
 FIRM: _____
 ADDRESS: _____
 PHONE: _____
 Present on Site ☐ YES ☐ NO

Equipment Rental 0
 Tolls \$ 0
 Parking \$ 0
 Mileage 60
 Project Preparation Time 10

Arrive Job 9:30
 Depart Job 2:30
 Total Hours on Job 6.00
 Travel Time 1.5

TOTAL CHARGEABLE HOURS
 4 hour minimum
 8 hour minimum

8.5

Summary of sampling and testing services performed, including field test data. Locations, elevations and depth are estimated.

Personnel : 1 ATS STAFF

Area Worked : Water Invert, West Branch Excavation, South of Smith Creek Line
 of Ohio Street

Excavating : Monitor the material removal during excavation of water invert
 removal of concrete slab and curbside stone.

Monitor Soil Beneath Re Stone, Reading @ 6500CPM unsaturated
 < than 7.2 Pcf/s.

Survey Every bucket full. before disposed or clear...
 material, stock pile @ the construction site for further disposal...

Survey between existing utilities, Com. Ed, SBC's & different
 elevation. Bottom of excavation @ -8.5 feet

Top of feet Cinders mixed with silt, fine sand.

☐ Field Test Data is Estimated - Pending Final Laboratory Test Results

Site Sketch: Indicate North

Field Representative John B. [Signature]
 Position _____
 Company _____

By [Signature]
 Title Environmental Specialist
 MTS Representative

White - Office White - Field Yellow - Time Card

8/04 5K

Material Testing Services, Inc.

FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations; 29 CFR 1926 Subpart P.

Page 2 of 2

Project OGH Inspections Project No. 75585 CM
Location 341 E. Ohio St. Chicago IL Day/Date Monday, January 24, 05

Summary of sampling and testing services performed, including field test data. Locations, elevations and depth are estimated.

Cont' : from 4 feet to 6 feet layer of ashes gray to dk gray Elevated
loading @ 10600 cfm unsaturated < than 7.2 R_{1/2}.
Encountered layer of clay fill material, followed by natural
sand @ 8 feet loading @ 5800 cfm unsaturated < than 7.2 R_{1/2}.
Using long Cont for bottom and Walk Survey @ -8.6 feet.
No Impacted material has been encountered, zone fill excavated area.
Material: Pushed Stone vol to be surveyed before placement.

Background : 5900 cfm unsaturated.

Calibration : 20279 cfm unsaturated = 7.2 R_{1/2} and 7319 cfm saturated = 7.2 R_{1/2}.

Equipment : Ludlum 222 / with a 2"x2" dial probe, 40-10 Serial #174496

Note : Minute Control with Casim 137 averaging

* Field Test Data is Estimated - Pending Final Laboratory Test Results

Field Representative _____
Position _____
Company _____

By [Signature]
Title Senior Safety Specialist
MTS Representative

White - Office

White - Field

Yellow - Time Card

1004 2K

Material Testing Services, Inc.

FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29 CFR 1926 Subpart P.

1 of 2

Project OGW Inversion
 Project No. 25585cm
 Location 341 E. Ohio St. - Chicago IL
 Contractor TRC

Report No. _____
 Day/Date Tuesday, January 25, 05
 Weather/Temp. Sunny 30°F
 Client _____

Project Competent Person per 29 CFR Part 1926 (Subpart P)
 NAME: _____
 FIRM: _____
 ADDRESS: _____
 PHONE: _____
 Present on Site ☐ YES ☐ NO

Equipment Rental 0
 Tolls \$ 0
 Parking \$ 0
 Mileage 60
 Project Preparation Time 1.0
 Arrive Job 8:30
 Depart Job 3:30
 Total Hours on Job 7.60
 Travel Time 1.5

TOTAL CHARGEABLE HOURS
 4 hour minimum
 8 hour minimum

9.5

Summary of sampling and testing services performed, including field test data. Locations, elevations and depth are estimated.

Personnel : 1 AS STAFF

Area Worked : Removal of Concrete @ the East Branch of Water Main, Below
 Curb of Ohio Street.

Excavating : Survey Concrete Removal @ the East Branch of Water Main, Release
 of Concrete Spill as clean material. Reading & Hour 7:15/35.
 Survey Remaining Material by lift. until reached 3.5 feet
 Below grade, Reading @ 11:00 CPM. unsaturated & Hour 7:25/35.
 Survey Material by bucket during removal, Surveyed
 every 200 ft and Release as clean Spill.
 Reading @ 6:00 CPM unsaturated & Hour 7:30/35.

* ☐ Field Test Data is Estimated - Pending Final Laboratory Test Results

Site Sketch: Indicate North

Field Representative James Berke
 Position _____
 Company _____

By Edward J. Berke
 Title Senior Test Specialist
 MTS Representative

White - Office White - Field Yellow - Time Card

8/04 5K

Material Testing Services, Inc.

FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29 CFR 1926 Subpart P.

Page 2 of 2

Project OGN Lanes Co. Project No. 2558524
Location 341 E. OHIO ST. CHICAGO, ILL. Day/Date Tuesday, January 25, 05

Summary of sampling and testing services performed, including field test data. Locations, elevations and depth are estimated.

Cont.: Survey wall and border of Elevated leading soil twice back ground
Excavated during the Bucket leading or any other Elevated leading
@ the top 3.5 feet during lift surveys.

Monitor all excavation between the utilities exposed, as 2558524
Edison lines and City Electric, material underneath the utilities
was not excavated, but survey the wall with long cord system
All readings one - than the project.

Backfill excavated area with crushed stone upon final surveys.
No fractured material has been excavated

Back ground : At 4500 CPM installed

Calibration : At 20279 CPM installed = 7.22 cpi/s and 7819 CPM installed = 7.22 cpi/s

Equipment : Lubber 2024 with NAL Probe 2" x 2" 40-10 Serial # 174496

Note : Calibration with Corium - 1377 Minute Count Averaging

* Field Test Data Is Estimated - Pending Final Laboratory Test Results

Field Representative _____
Position _____
Company _____

By [Signature]
Title Environmental Specialist
MTS Representative

White - Office

White - Field

Yellow - Time Card

1004 2K

Material Testing Services, Inc.

FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29 CFR 1926 Subpart P.

1 of 2

Project OSHA Inspections
 Project No. 25585 QM
 Location 341 E. Ohio St Chicago IL
 Contractor TRI

Report No. _____
 Day/Date Tuesday January 27 05
 Weather/Temp. Partly Sunny 15°F
 Client _____

Project Competent Person per 29 CFR Part 1926 (Subpart P)

NAME: _____

FIRM: _____

ADDRESS: _____

PHONE: _____

Present on Site ☐ YES ☐ NO

Equipment Rental \$ 0

Tolls \$ 0

Parking \$ 0

Mileage 60

Project Preparation Time 1:00

Arrive Job 9:00

Depart Job 3:30

Total Hours on Job 6.5

Travel Time 1.5

TOTAL CHARGEABLE HOURS
 4 hour minimum
 8 hour minimum

9.0

Summary of sampling and testing services performed, including field test data. Locations, elevations and depth are estimated.

Personnel : TEST STAFF

Area Worked : the Eastern Sanitary Sewer Completed the Ditch Portion.

Excavating : Removed Curbedstone Survey Surface Reading @ 8:00 AM unshattered
than 7.2 R₁/35.

Continue with the work by using left procedure @ B "Survey col....

@ Each Elevation, Reading @ 10:00 AM unshattered from 12" to offset

below grade, Survey the remaining excavation by bucket (half full),

and also pile of soil before placed as clean material....

Reading @ bucket exposed to air, Reading diminished to 5:00 AM

unshattered - than 7.2 R₁/35.

* ☐ Field Test Data is Estimated - Pending Final Laboratory Test Results

Site Sketch: Indicate North

Field Representative June Berber

Position _____

Company _____

By DAVID E. BROWN

Title Senior Rental Specialist

MTS Representative

White - Office

White - Field

Yellow - Time Card

8/04 5K

Material Testing Services, Inc.

FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29 CFR 1926 Subpart P.

Page 2 of 2

Project OGM Inspections Project No. 7557544
 Location 341 E. Ohio St. Chicago IL. Day/Date Tuesday, January 27 05

Summary of sampling and testing services performed, including field test data. Locations, elevations and depth are estimated.

Goal : Borehole of Excavation starts from 4 feet to 9 feet deep. Carefully Excavated around the Existing Utilities, Covered, JBC from 4' Survey Wall and and pathway and @ Bottom 8.5 feet

All Areas Have been Covered during Excavation - No Un-
 packed Material has been Encountered.

Move to Grand Ave Side Walk, South of Property Line
 Excavated @ West Side of Existing driveway @ Existing Covered Vault
 Reading Below Concrete Slab @ 8,000 CFM Unstabilized - than 7.2 psi/ft
 Reached to 4 feet Reading @ 13,000 CFM Unstabilized - than 7.2 psi/ft
 Cinders Misc. fill.

Calibration : At 20,279 CFM Unstabilized = 7.2 psi/ft and 17,390 CFM Stabilized = 7.2 psi/ft.

Back ground : 4,100 CFM Unstabilized

Equipment : Ludlum 2221 with a 2"x2" Vial Probe 40-10 Serial # 170096

Note : Quick Count with Counting - 137 Average

* Field Test Data is Estimated - Pending Final Laboratory Test Results

Field Representative _____
 Position _____
 Company _____

By JOHN J. JENKINS
 Title Field Representative
 MTS Representative

FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29 CFR 1926 Subpart P.

1 of 2

Project OSM Excavations
 Project No. 95585tm
 Location 341 E. Ohio Street Chicago IL
 Contractor TRI

Report No. _____
 Day/Date Friday, January 28, 05
 Weather/Temp. Cold 30°F
 Client _____

Project Competent Person per 29 CFR Part 1926 (Subpart P)
 NAME: _____
 FIRM: _____
 ADDRESS: _____
 PHONE: _____
 Present on Site ☐ YES ☐ NO

Equipment Rental 0
 Tolls \$ 0
 Parking \$ 0
 Mileage 60
 Project Preparation Time 10
 Arrive Job 8:00
 Depart Job 4:00
 Total Hours on Job 8.0
 Travel Time 1.5

TOTAL CHARGEABLE HOURS
 4 hour minimum
 8 hour minimum

10.5

Summary of sampling and testing services performed, including field test data. Locations, elevations and depth are estimated.

Personnel : 1955 SIPP

Area Worked : Completed Gas Main and Water Main Work of Ohio Street
Outer line.

Excavating : Remove Curbs and Asphalt @ Both Area Prior to Removal and
Survey of Concrete and Rebar. as clean as possible.
Reading @ 0500CPM was 115' Had a clean 72 R.P.S.
Remove the Gas Main Soil by 18" lift. Survey into the Excavation.
to - 3.5 feet Reading @ 1400 CPM was 115' Had a clean 72 R.P.S.
Encountered the Remains of the Excavation this was Surveyed at
1/2 Bucket full, Reading @ 7500 CPM was 115' Had a clean 72 R.P.S.

* ☐ Field Test Data is Estimated - Pending Final Laboratory Test Results

Site Sketch: Indicate North

Field Representative _____
 Position _____
 Company _____

By Amosal Puerria
 Title Environmental Specialist
 MTS Representative

White - Office

White - Field

Yellow - Time Card

8/04 SK

Material Testing Services, Inc.

FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29 CFR 1926 Subpart P.

Page 2 of 2

Project OBH Excavations Project No. 25585
 Location 341 E. Ohio Street Chicago IL Day/Date Friday January 28 05

Summary of sampling and testing services performed, including field test data. Locations, elevations and depth are estimated.

Cont' : Proceed with the Excavation of the water main and (Cross-over) for valve placement, following the same procedure as the gas line. Survey Control before Release as clean material, Survey for By Lift 18" Condens, Askes Bricks Reading @ 8,000CPM unshielded = than 72 R:PS. The Remaining has been Surveyed By 1/2 Bucket full Reading @ 6,500 CPM unshielded = than 72 R:PS. Best field Soil Excavation with CMB, a portion of the Soil Excavated has been tested as best field upon Release as clean Soil.

Note : Taking Minute Count with Cesium-137 Averaging 4 Set of Readings

Best ground : 5,200 CPM unshielded

Calibration : 20,279 CPM unshielded = 72 R:PS and 7,319 CPM shielded = 72 R:PS.

Equipment : Ludlum 2224 with 2"x2" NAL Probe 40-10 S#170496

* Field Test Data is Estimated - Pending Final Laboratory Test Results

Field Representative _____
 Position _____
 Company _____

By James J. Sweeney
 Title Environmental Specialist
 MTS Representative

White - Office

White - Field

Yellow - Time Card

10/04 2K

Material Testing Services, Inc.

FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29 CFR 1926 Subpart P.

1 of 2

Project OGM Investigations
 Project No. 25585 QM
 Location 341 E. OHIO ST CHICAGO ILLINOIS
 Contractor TRC

Report No. _____
 Day/Date Monday January 31 05
 Weather/Temp. Sunny 31°F
 Client _____

Project Competent Person per 29 CFR Part 1926 (Subpart P)
 NAME: _____
 FIRM: _____
 ADDRESS: _____
 PHONE: _____
 Present on Site ☐ YES ☐ NO

Equipment Rental 0
 Tolls \$ 0
 Parking \$ 0
 Mileage 60
 Project Preparation Time 1.75
 Arrive Job 8:00
 Depart Job 4:00
 Total Hours on Job 8.0
 Travel Time 1.25

TOTAL CHARGEABLE HOURS
 4 hour minimum
 8 hour minimum

10.00

Summary of sampling and testing services performed, including field test data. Locations, elevations and depth are estimated.

Personnel : MTS STAFF

Area Worked : North Side Walk of Grand Ave, East of Property line.

Excavating : Removal of 2 portions of the side walk at the West End of Property and East of West Construction Gate, Surveyed to locate open
 Conf. Ltr. Reading @ 5100CPM untested - than 7.2 lb/ft³.....
 Second layer of concrete slab encountered @ 14" below grade.....
 Monitor and Survey the material. Between the layers crushed stone
 and gravel. Reading @ 6000CPM untested - than 7.2 lb/ft³.....
 Continued to Survey the material. By 18" lift, circles and
 holes, Bricks Monitor

* ☐ Field Test Data is Estimated - Pending Final Laboratory Test Results

Site Sketch: Indicate North

Field Representative _____
 Position _____
 Company _____

By [Signature]
 Title Environmental Specialist
 MTS Representative

White - Office White - Field Yellow - Time Card

8/04 SK

Material Testing Services, Inc.

FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29 CFR 1926 Subpart P.

Page 2 of 2

Project OS 44 Excavations

Project No. 2558524

Location 341 E. OHIO ST. CHICAGO, IL.

Day/Date Tuesday, January 31, 05

Summary of sampling and testing services performed, including field test data. Locations, elevations and depth are estimated.

Cont. : Monitor the material around the Com Ed vault, run parallel to the property. At 3.5 feet from the top of Cont line, 18" wide.

Material Surrounding Utility, Cinders, Ashes, Wood Chips very moist. Reading @ 13000 CPM unstable, Below 4 feet all readings have been monitored @ the Buckel Halfway full.

As impacted material has been encountered, at cinder area & the excavated zone, material sand encountered @ 7 feet. Bottom of Excavation @ 8.5 feet.

Note : All material has been returned at the Excavation upon Release as clean soil.

Back ground : At 4100 CPM unstable

Calibration : At 20279 CPM unstable = 7.2 RPS and 17319 CPM stable = 7.2 RPS.

Equipment : Ludlum 2221 with a 2" x 2" VAC Probe 40-100" 170496

* Field Test Data is Estimated - Pending Final Laboratory Test Results

Field Representative _____

Position _____

Company _____

By [Signature]
Title Environmental Specialist
MTS Representative

White - Office

White - Field

Yellow - Time Card

10/04 2K

Material Testing Services, Inc.

FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29 CFR 1926 Subpart P.

1 of 2

Project OGM Inspections
 Project No. 25585214
 Location 341 E. Ohio Street Chicago IL
 Contractor TRI

Report No. _____
 Day/Date Tuesday February 1, 05
 Weather/Temp. Sunny 31°F
 Client _____

Project Competent Person per 29 CFR Part 1926 (Subpart P)

NAME: _____

FIRM: _____

ADDRESS: _____

PHONE: _____

Present on Site ☐ YES ☐ NO

Equipment Rental 0

Tolls \$ 0

Parking \$ 0

Mileage 600

Project Preparation Time _____

Arrive Job 7:30

Depart Job 4:00

Total Hours on Job 8.5

Travel Time 1.85

_____ .75

TOTAL CHARGEABLE HOURS
 4 hour minimum
 8 hour minimum

10.5

Summary of sampling and testing services performed, including field test data. Locations, elevations and depth are estimated.

Personnel : MTS STAFF

Area Worked : Work on Grand Ave, IDOT Curb Removal

Excavating : Work on the Removal of Side Walk, Surveyed Concrete Slab
Two different concrete layers with crushed stone between layers
Reading @ 4500 CPM unsat'd

Soil Removal has been completed by 18" lift top 3' Bore
and two full Cinders were Reading @ 14,000 CPM unsat'd
than 7.2' High Soil triple Background Reading @
4700 CPM unsat'd

Excavated Between City Electric C. - 3'6" Below Grade

☐ Field Test Data is Estimated - Pending Final Laboratory Test Results

Site Sketch: Indicate North

Field Representative _____

Position _____

Company _____

By Adrian S. [Signature]

Title Environmental Specialist

MTS Representative

White - Office

White - Field

Yellow - Time Card

8/04 5K

Material Testing Services, Inc.

FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29 CFR 1926 Subpart P.

Page 2 of 2

Project OGW Insulators Project No. 2558541
Location 341 E. Ohio Street Chicago IL Day/Date Tuesday, February 1, 05

Summary of sampling and testing services performed, including field test data. Locations, elevations and depth are estimated.

Cont' : Soil Encountered Below 2'6" Wood chips, debris and bricks very
moist Reading @ 8000 CPM unsaturated, Natural Sand @ 7.5 feet
Bottom at Excavation @ 8.5 feet Reading @ 4500 CPM unsaturated.
Below 8 feet Lumpy material @ Bucket 1/2 full. Where loose
Reading has been collected. Back filled upon completion with
excavated soil upon released as clean material. Surveyed @
stock pile, fully linear feet at sidewalk has been surveyed
Eight feet wide to 8.5 feet deep.
No suspected material has been encountered.

Background : At 4200 CPM unsaturated

Calibration : At 20279 CPM unsaturated = 7.2 Rf/g and 17319 CPM saturated = 7.2 Rf/g.

Equipment : Ludlum 2221 with a 2"x2 VDL probe 40-10 S# 174496

Note : Daily Calibration with Cesium-137 Minute Count Averaging.

* Field Test Data is Estimated - Pending Final Laboratory Test Results

Field Representative _____
Position _____
Company _____

By [Signature]
Title Environmental Specialist
MTS Representative

White - Office

White - Field

Yellow - Time Card

10/04 2K

Material Testing Services, Inc.

FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29 CFR 1926 Subpart P.

Project OSM Excavations Report No. 1 of 2
 Project No. 25585AM Day/Date Wednesday February 2, 05
 Location 341 E. Ohio St. Chicago IL Weather/Temp. Funny 35°F
 Contractor TRI Client GrinTech Management

Project Competent Person per 29 CFR Part 1926 (Subpart P)

NAME: _____

FIRM: _____

ADDRESS: _____

PHONE: _____

Present on Site ☒ YES ☐ NO

Equipment Rental 0

Tolls \$ 0

Parking \$ 0

Mileage 60

Project Preparation Time .75

Arrive Job 8:00

Depart Job 4:30

Total Hours on Job 8.80

Travel Time 1.5

TOTAL CHARGEABLE HOURS
4 hour minimum
8 hour minimum

10.75

Summary of sampling and testing services performed, including field test data. Locations, elevations and depth are estimated.

Personnel : 7573 Staff

Area worked : Continued @ the Side Walk Removal, Grand Ave. North Cul Line.

Excavating : Uncovered @ the Removal of fifty linear feet portion of sidewalk
Monitor any Concrete gas removal and release as clean spot
Uncovered the Remaining Area @ 18" lift to -4 feet

Reading @ 12000 PPM unrestricted - than 7.2 lbs/gal

Industrial Cemented if sand mixed with Cement where
the highest readings have been collected

Organic fill, wood chips mixed metal scraps very rusty

Red in color and very strong decay odor

* ☐ Field Test Data is Estimated - Pending Final Laboratory Test Results

Site Sketch: Indicate North

Field Representative _____

Position _____

Company _____

By Quinn J. Linneman

Title Environmental Specialist

MTS Representative

White - Office

White - Field

Yellow - Time Card

8/04 SK

Material Testing Services, Inc.

FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29 CFR 1926 Subpart P.

Page 2 of 2

Project OGM Investigations

Project No. 25585CM

Location 341 E. Ohio St. CHICAGO IL.

Day/Date Wednesday February 2, 05

Summary of sampling and testing services performed, including field test data. Locations, elevations and depth are estimated.

Cont' : The Remainder of the Excavation Had to Be Surveyed By Bucket Half full
At the Bucket All Readings diminished to a very low readings
At 3000 CPM unsaturated = than 77.2 Pp/ps.

Layer of Ashes Gray to DC Gray @ -7 feet Reading @
10000 CPM unsaturated = than 7.2 Pp/ps. Carefully Excavated around
the City Electric Line. From East-west @ 3'5" Depth of the Depth
Curb line, very fractured Concrete over 6 asphalt tile.
Upon final Survey & All Material Have Been placed Back into the
Excavation as back fill, Concrete layers have been displaced
properly not within the Excavation.
No Defected Material Has Been Encountered.

Back Ground : At 4500 CPM unsaturated

Calibration : At 20279 CPM unsaturated = 72 Pp/ps. and 7319 CPM saturated = 72 Pp/ps.

Equipment : Ludlum 2221 with a 2"x2" VAC Probe 40-10 J#174496

Note : Check Source Cerium-137 Have Been used for Averaging, Thimble Count.

* Field Test Data is Estimated - Pending Final Laboratory Test Results

Field Representative _____

Position _____

Company _____

By Erica R. Lucanese

Title Senior Health Specialist

MTS Representative

White - Office

White - Field

Yellow - Time Card

10/04 2K

Material Testing Services, Inc.

FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29 CFR 1926 Subpart P.

1 of 2

Project OGM Structures
 Project No. 25585214
 Location 341 E. Ohio St. Chicago IL
 Contractor Rein Construction TRC

Report No. _____
 Day/Date Thursday February 3 05
 Weather/Temp. Sunny 35°F
 Client _____

Project Competent Person per 29 CFR Part 1926 (Subpart P)
 NAME: _____
 FIRM: _____
 ADDRESS: _____
 PHONE: _____
 Present on Site ☐ YES ☐ NO

Equipment Rental 0
 Tolls \$ 0
 Parking \$ 0
 Mileage 60
 Project Preparation Time 1.0
 Arrive Job 8:00
 Depart Job 4:30
 Total Hours on Job 8.5
 Travel Time 1.0

TOTAL CHARGEABLE HOURS
 4 hour minimum
 8 hour minimum

10.5

Summary of sampling and testing services performed, including field test data. Locations, elevations and depth are estimated.

Personnel : 12TS STAFF

Area worked : Continued Excavation of Side Walk Removal (Grand Ave) North of North Creek.

Excavating : Proceed @ the Removal of Concrete Slab at Eastern End, thirty feet West of the Eastern End of the property.
Survey Area at the Surface upon Removal Reading @ 8000CPM
unstable < than 7.2 psi/85.
Continued with the Soil Removal By 18" lift. up to four feet Below Grade, along side City Electric @ 39" Below Grade.
Reading @ Excavation @ 14,000CPM unstable < than 7.2 psi/85.

* ☐ Field Test Data is Estimated - Pending Final Laboratory Test Results

Site Sketch: Indicate North

Field Representative _____
 Position _____
 Company _____

By [Signature]
 Title Senior Technician
 MTS Representative

White - Office

White - Field

Yellow - Time Card

8/04 5K

Material Testing Services, Inc.

FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29 CFR 1926 Subpart P.

Page 2 of 2

Project 0621 Inverness Project No. 25585221
Location 241 E. Ohio St. - 2nd Chicago Ill. Day/Date Thursday February 30, 201

Summary of sampling and testing services performed, including field test data. Locations, elevations and depth are estimated.

Cont: All Readings Below four feet Elevation, Have Been Collected @ the Bucket 1/2 full. Material Encountered, Sand + Cinders mixed At 5 feet Organic wood chips decayed, Garbage and Rusty Color Metal parts. Reading @ 9000CPM unshielded.
This Area #1 for today within the Side Walk Removal.
The Second Area to be South wall of the property to the East portion where screen has been placed during the Renovation.
Survey South Side of screen Grand Ave side, Granite Blocks Encountered Cause Elevated Reading @ the down hole tape area.
Reading @ 16000CPM unshielded, Reading dropped when Granite Blocks Have Been Removed.
x Survey a portion of the Sewer Sanitary Sewer on Grand Ave Excavation Six feet wide, 8 deep and 8 long.
Reading @ 1300CPM unshielded @ the 10-16 feet Cinders Layer Area.
No compacted material has been encountered.

Background: At 4300CPM unshielded

Calibration: At 20219CPM unshielded = 72 Rps and 17319CPM shielded = 72 Rps.

Equipment: Ludlum 2221 with a 2" x 2" Vial Probe 40-10 S# 174496

Note: Daily Calibration with Cesium-137. Minute Count Averaging.

* Field Test Data is Estimated - Pending Final Laboratory Test Results

Field Representative _____
Position _____
Company _____

By [Signature]
Title Senior Health Specialist
MTS Representative

FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29 CFR 1926 Subpart P.

1 of 2

Project OGM Replacements
 Project No. 255500
 Location 345 E Ohio St. Chicago IL
 Contractor TRC

Report No. _____
 Day/Date Friday February 4, 05
 Weather/Temp. Sunny 45°F
 Client Gratec Management

Project Competent Person per 29 CFR Part 1926 (Subpart P)
 NAME: _____
 FIRM: _____
 ADDRESS: _____
 PHONE: _____
 Present on Site ☐ YES ☐ NO

Equipment Rental <u>0</u>	Arrive Job <u>8:00</u>	TOTAL CHARGEABLE HOURS 4 hour minimum 8 hour minimum <u>10.0</u>
Tolls \$ <u>0</u>	Depart Job <u>4:00</u>	
Parking \$ <u>0</u>	Total Hours on Job <u>8.0</u>	
Mileage <u>60</u>	Travel Time <u>1.0</u>	
Project Preparation Time <u>1.0</u>		

Summary of sampling and testing services performed, including field test data. Locations, elevations and depth are estimated.

Personnel : TSIS STAFF

Area Worked : Main Sanitary Sewer on Grand Ave. South of the North Arch.
and Side Work Removal from West End of Property down to
21 linear feet to the East to the Impacted Area.

Excavating : Proceed with the Removal of Asphalt and Concrete Slab within the
Sewer line Area Monitor and Survey Area to find Slab Curved
Stones with Cinders fill Below, Reading @ 13000 cfm established
at 7.2 ft/lb. Proceed with 18" Lift Layer of Cinders
to 4.5 ft and Ashes and Fine fill, Dr. Gray + Reedy Brown
Reading @ 13000 cfm established above 7.2 ft/lb.

* ☐ Field Test Data Is Estimated - Pending Final Laboratory Test Results

Site Sketch: Indicate North

Field Representative _____

Position _____

Company _____

By _____

Title _____

MTS Representative

White - Office

White - Field

Yellow - Time Card

B704 SK

Material Testing Services, Inc.

FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29 CFR 1926 Subpart P.

Page 2 of 2

Project OG4 Elevators Project No. 2558544
Location 245 E. Ohio St. Chicago, Ill. 60611 Day/Date Friday, February 4, 05

Summary of sampling and testing services performed, including field test data. Locations, elevations and depth are estimated.

Cont: Below 8 feet Survey material By bucket 1/2 full. Condens and Sine fill to 17 feet with Natural Sand Below. Reading @ 6500 CPM unsaturated - 7.2 Pci/gf.

No suspected material has been encountered during this survey. Proceeded to the removal of Concrete slab @ sidewalk (near St. Paul Ave, from Washen End of Property line), within 31 feet End of Property until Reached Suspected Area South of Property line.

This Area was known as suspected during Remediation earlier. Soil Reading between the 31 feet line from property line. At 16000 CPM unsaturated at the Top 3 feet, and at 8000 CPM unsaturated - 7.2 Pci/gf from 3 feet to the Natural Sand at - 7.5 feet.

Reading @ the Suspected Area Reached to 50% unsaturated. Secured the Area for Removal of Concrete Slab. Notified Project Manager and Air Monitor Laboratory for Removal Monitoring.

Soil ground : 1500 CPM unsaturated : using Source Calcium-137 for Liquid Count Storage Calibration : 30,214 CPM unsaturated = 7.2 Pci/gf and 17,819 CPM unsaturated = 7.2 Pci/gf. Equipment : Ludlum 5021/1519 & 2" x 2" Vd Probe 10-10 5/11/4496

* Field Test Data is Estimated - Pending Final Laboratory Test Results

Field Representative _____
Position _____
Company _____

By [Signature]
Title Environmental Health Specialist
MTS Representative

White - Office White - Field Yellow - Time Card

1004 2K

Material Testing Services, Inc.

FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29 CFR 1926 Subpart P.

1 of 2

Project O&M Excavations
 Project No. 255854
 Location 245 E. Ohio St. Chicago IL
 Contractor TRE

Report No. _____
 Day/Date Monday February 07, 05
 Weather/Temp. Cloudy 40°F
 Client Garrett Management

Project Competent Person per 29 CFR Part 1926 (Subpart P)
 NAME: _____
 FIRM: _____
 ADDRESS: _____
 PHONE: _____
 Present on Site ☒ YES ☐ NO

Equipment Rental 0
 Tolls \$ 0
 Parking \$ 0
 Mileage 60
 Project Preparation Time 1.5
 Arrive Job 9:00
 Depart Job 3:00
 Total Hours on Job 6.0
 Travel Time 1.5

TOTAL CHARGEABLE HOURS
 4 hour minimum
 8 hour minimum

9.0

Summary of sampling and testing services performed, including field test data. Locations, elevations and depth are estimated.

Personnel : MTS STAFF

Area Worked : Completed Sanitary Sewer on Grand Ave, South of North Sidewalk.

Excavation : Removal of the concrete slab and concrete pavers old Rail Road tracks and tile, monitored and surveyed all material below the concrete slab and ballast that was still exposed below the street.

Reading @ 8000 CPM was recorded - than 7.2 R/p/s.

Surveyed the material by 18" lift up to 1 foot below grade.

During the lift, Reading @ 13,500 CPM was recorded - than 7.2 R/p/s.

Monitored the remaining of the excavation at the bucket.

1/2 full with reading @ 5000 CPM - than 7.2 R/p/s.

☐ Field Test Data is Estimated - Pending Final Laboratory Test Results

Site Sketch: Indicate North

Field Representative _____
 Position _____
 Company _____

By Dennis L. Lennard
 Title Environmental Specialist
 MTS Representative

White - Office

White - Field

Yellow - Time Card

8/04 5K

Material Testing Services, Inc.

FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29 CFR 1926 Subpart P.

Page 2 of 2

Project OGIN BRUSSELS Project No. 25585241

Location 245 E. OHIO ST. CHICAGO IL. Day/Date Tuesday, February 07 05

Summary of sampling and testing services performed, including field test data. Locations, elevations and depth are estimated.

Cont' : Surveyed 41 foot pole before placed on clean material and been loaded off-site. Area opening twenty-three feet long, 17 feet deep and 6 feet wide. Ground elevation at -7 feet. Soil fill Area with CA-6 material.

No Impactal material has been encountered during the process.

Note : Calibrate Ludlum with a source -137 Iridium Count Area only.

Back ground : 4500 CPM unshielded

Calibrations : 20,379 CPM unshielded = 7.2 R/hr and 7,319 CPM shielded = 7.2 R/hr.

Equipment : Ludlum 2221 with 2" x 2" NaI probe 40-10 I# 174496

Note : Packed up equipment needed for Impactal Soil Removal, Super-SACC, Rad-Pope, Tyvek and Boots, and Thermochromic Sample Containers.

* Field Test Data is Estimated - Pending Final Laboratory Test Results

Field Representative _____

Position _____

Company _____

By Quinn H. Hargrove
Title Senior Health Specialist
MTS Representative

White - Office

White - Field

Yellow - Time Card

10/04 2K

Material Testing Services, Inc.

FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29 CFR 1926 Subpart P.

1 of 2

Project OGA Questions
 Project No. 2585 KAL
 Location 345 E. Ohio Street Chicago
 Contractor TRE

Report No. _____
 Day/Date Tuesday February 08, 05
 Weather/Temp. Cloudy 31°F
 Client Smith Management

Project Competent Person per 29 CFR Part 1926 (Subpart P)

NAME: _____

FIRM: _____

ADDRESS: _____

PHONE: _____

Present on Site ☒ YES ☐ NO

Equipment Rental 0

Tolls \$ 0

Parking \$ 0

Mileage 60

Project Preparation Time 10

Arrive Job 9:00

Depart Job 5:30

Total Hours on Job 8.5

Travel Time 1.0

TOTAL CHARGEABLE HOURS
 4 hour minimum
 8 hour minimum

10.5

Summary of sampling and testing services performed, including field test data. Locations, elevations and depth are estimated.

Personnel: 1 test staff and 1 test staff

Area worked: Completed the Solvate Removal at the East End of Property on Grand Ave, South End.
And Removal suspected material at Exclusion Zone Area at the South End, New Wall of Property East of South West Corner of Property line.

Excavating: Removal, Monitor and Survey @ the Area Solvate, Leading Below Concrete slab @ 5'00 cm or less.
Doing 18" lift Removal during the Excavation, Sand buried with Cinders at the top 3 feet, leading @ 13'00 cm or less - 7' lift.
material Below Organic wood chips, very strong odor

☐ Field Test Data is Estimated - Pending Final Laboratory Test Results

Site Sketch: Indicate North

Field Representative _____

Position _____

Company _____

By [Signature]

Title Environmental Specialist

MTS Representative

White - Office

White - Field

Yellow - Time Card

8/04 5K

Material Testing Services, Inc.

FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29 CFR 1926 Subpart P.

Page 2 of 2

Project OGA Excavations Project No. 255852
Location 245 E. Ohio St. Chicago IL Day/Date Tuesday February 08, 05

Summary of sampling and testing services performed, including field test data. Locations, elevations and depth are estimated.

Cont: : Natural Sand Encountered @ 8 feet At 4500CPM Unstaked
than 72 Rpf's.
Excavated around the City Electric at 245 E. Ohio St. Excavation
Dimensions at 23 feet long, 6 feet wide and 3 feet deep.
Set for the Removal for the Impacted Area @ 11.3-12 -
Impacted Material Encountered during Remediation Efforts.
Res. Technician did personal air monitor and used Locking
Tag, during the process, before proceed with the removal. Collected
the highest reading at the impacted area, for analytical at 600
Staked > than 72 Rpf's.
A total of 8 cubic yards have loaded into Super Jack with
Open in place; final reading @ the bottom and walls remaining
material @ 4500CPM Staked < than 72 Rpf's.

He used : 3 sets of P.E. have been used.
Back found : 4500CPM unstaked
Calibration : At 20279CPM unstaked = 72 Rpf's and 7319CPM Staked = 72 Rpf's.
Equipment : Ludlum 2221 with 24" Vial Probe 40-10 S# 174596.
Notes : Completed paper work for samples delivery. described work site into
Impacted Soil Super Jacks, Calibrated Equipment with Cesium-137.

* Field Test Data is Estimated - Pending Final Laboratory Test Results

Field Representative _____
Position _____
Company _____

By Richard J. Pearson
Title Senior Test Technician
MTS Representative

White - Office

White - Field

Yellow - Time Card

10/04 2K

Material Testing Services, Inc.

FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29 CFR 1926 Subpart P.

1 of 2

Project OGH Excavations
 Project No. 255854M
 Location 345 E. Ohio St. Chicago Illinois
 Contractor TRC

Report No. _____
 Day/Date Wednesday February 9, 05
 Weather/Temp. Sunny 81°
 Client Spintech Management

Project Competent Person per 29 CFR Part 1926 (Subpart P)
 NAME: _____
 FIRM: _____
 ADDRESS: _____
 PHONE: _____
 Present on Site ☒ YES ☐ NO

Equipment Rental 0
 Tolls \$ 0
 Parking \$ 0
 Mileage 60
 Project Preparation Time _____
 Arrive Job 9:00
 Depart Job 4:30
 Total Hours on Job 7.5
 Travel Time 1.0
 Project Preparation Time 0.75

TOTAL CHARGEABLE HOURS
 4 hour minimum
 8 hour minimum

9.25

Summary of sampling and testing services performed, including field test data. Locations, elevations and depth are estimated.

Personnel : 100% STAFF

Area Worked : Excavation Zone at A-3-16 and Sidewalk Removal West of Excavation Zone 25 linear feet.

Excavating : Remove Sidewalk Area Surveyed Area and Soil Below Before Relined, no impacted material encountered @ the top. Excavation... Continued with 18" lift to 4 feet. Below Grade, Sand + Gravel Area at the top 3.5 feet with Reading @ 15000CPM unstable @ West West Corner of the Excavation within the Excavation Zone Area... Proceed with the Excavation to the East until the whole Area... Have been Covered Bottom of Excavation at - 8 feet. Natural Sand

* ☐ Field Test Data is Estimated - Pending Final Laboratory Test Results

Site Sketch: Indicate North

Field Representative _____
 Position _____
 Company _____

By [Signature]
 Title Excavation Superintendent
 MTS Representative

White - Office

White - Field

Yellow - Time Card

8/04 SK

Material Testing Services, Inc.

DAILY FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS' Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29CFR 1926 Subpart P.

Page: 2 of 2

Project: OBV Diversions Project No.: 2558522
Location: 340 E Ohio St. Chicago, IL Day/Time: Wednesday, February 9, 05

Summary of technical and/or engineering services performed, including field test data. Locations, elevations and depth are estimated

Paul : Reading @ 5400cm into the National Grid, unshielded Equipment has been used during the survey.
upon completion of the Area and final Surveys, Backfill Area with the Excavated soil.

The Gene from USEPA was present during verification sample at the Exclusion Zone P.3-P6 Area seven feet x seven feet x 3 feet deep. Area have been divided by 5 locations and Combined material within the Area, at 4500cm shielded or than 7.2Ri/gg.
Drop off sample at RSI lab in Morton Grove for Gamma Spectroscopy. Chain of Custody included time, date and location and signed by lab technician.

He used : Tools of PPE have been used.

Note : Used shielded Equipment during Surveys in the Exclusion Zone and during sampling for verification.

Back ground : 4500cm unshielded

Calibration : At 20279cm unshielded = 22.8Ri/gg. and 7319cm shielded = 7.2Ri/gg.

Equipment used : Lullum 221 with 2"x2" Val Probe, 40-10 SE 174496 and an Alpha Pencil probe for hygiene purposes, body Surveys
daily Calibration : Using a Cesium-137 for Point Count Averaging

☐ Field Test Data Is Estimated - Pending Final Laboratory Test Results

Field Representative _____

Position _____

Company _____

By Edward J. Sullivan

Title Senior Field Personnel

Material Testing Services, Inc.

White - Office White - Field Yellow - Time Card

FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29 CFR 1926 Subpart P.

Project OGW Eversource
 Project No. 255854M
 Location 345 E. Ohio St. Chicago IL
 Contractor TRI

Report No. _____
 Day/Date Tuesday February 10, 05
 Weather/Temp. Drizzle 32°F
 Client GrainTech

Project Competent Person per 29 CFR Part 1926 (Subpart P)
 NAME: _____
 FIRM: _____
 ADDRESS: _____
 PHONE: _____
 Present on Site ☐ YES ☐ NO

Equipment Rental 0
 Tolls \$ 0
 Parking \$ 0
 Mileage 75
 Project Preparation Time 0
 Arrive Job 7:30
 Depart Job 4:30
 Total Hours on Job 9.00
 Travel Time 2.5

TOTAL CHARGEABLE HOURS
 4 hour minimum
 8 hour minimum

11.5

Summary of sampling and testing services performed, including field test data. Locations, elevations and depth are estimated.

Personnel: 1075 JEFF

Area Worked: Exclusion zone @ 11.3-16' Depth of Property

Excavating: Have lab result from lab (RSSI) from paper work to Unknots Brown and Gene of USEPA, have verification signed off for the Area Release Continued with the Excavation five feet to the East and three feet to the West of Exclusion.
Record with the Excavation Surveyed @ 18" lift to 3.5 feet. Surveyed @ the perimeter of Utility (G.E. Electric) At the top 5 feet. Reading @ 15000CPM unrestricted steam. D.2 Pi/35.
Below 3.5 feet Surveyed @ 1/2 of bucket full. Reading @ 5000CPM.

* ☐ Field Test Data is Estimated - Pending Final Laboratory Test Results

Site Sketch: Indicate North

Field Representative _____
 Position _____
 Company _____

By _____
 Title _____

MTS Representative

White - Office White - Field Yellow - Time Card

8/04 SK

Material Testing Services, Inc.

FIELD REPORT



NOTE: The responsibilities and authority of MTS and MTS Field Personnel include neither the responsibilities nor the authority of the "Competent Person" for the project site as defined by OSHA Regulations: 29 CFR 1926 Subpart P.

Page 2 of 2

Project OSM Enclosure Project No. 255854

Location 245 E. Ohio St. Chicago Illinois Day/Date Tuesday, February 10, 05

Summary of sampling and testing services performed, including field test data. Locations, elevations and depth are estimated.

Cont' : Soil consisted of Coarse sand Building debris fill,
with Organic Matter, wood chips, very strong odor. Above Natural
Sand @ - 7.5 feet.

Moved over to the East following the sampling procedure
to the East of the Enclosure Gate Area which is no longer
upon Release by USEPA. No compacted material has been en-
countered during the process.

Soil Ground : 10 ft. deep, unsaturated

Calculation : 20,279 lbs. unsaturated = 72 lbs/yd and 739 lb/m³ = 72 lbs/yd.

Equipment : Lullum 2221 with 2"x2" Vial Probe 40-10 Jth 170496

* Field Test Data is Estimated - Pending Final Laboratory Test Results

Field Representative _____

Position _____

Company _____

By Edward J. Parnell
Title Environmental Engineer
MTS Representative

White - Office

White - Field

Yellow - Time Card

1004 2K

Material Testing Services, Inc.

Appendix G

Photo Documentation



Photo 1: Looking West as soil is excavated and screened along north RAC. 12/15/04



Photo 2: Looking west as soil was excavated and screened along the south RAC. 12/16/2004



Photo 3: Looking west as radiation technician screens the soil along the south RAC utilizing Ludlum 2221 meter. 12/16/04



Photo 4: Looking north as “long cord” Ludlum meter was utilized along excavation side wall (north RAC).
12/16/04



Photo 5: Looking north as impact area #1 was removed and placed in Super Sack.
12/16/04



Photo 6: Looking south as second impact area has “hot” sample collected by radiation technician as USEPA observes. 12/17/04



Photo 7: Looking west as soil is excavated and screened in 18" lifts along west RAC. 12/19/04



Photo 8: Looking north as radiation technician checks west side wall of west RAC with long cord probe and Ludlum meter. 12/19/04



Photo 9: Looking south as workers with PPE excavated impacted soils from Area #2. 12/20/04



Photo 10: Looking down at finished remedial excavation for Area #2. 12/20/04



Photo 11: Looking on as remedial excavation #2 is backfilled. 12/20/04



Photo 12: Looking southeast as Super Sack partially filled with soil from remediated area #2 is placed into dumpster. 12/20/04



Photo 13: Look at designated area for removal of impact Area #3 (north RAC). 12/20/04



Photo 14: Looking west as excavation of impact begins in Area #3. Note: worker using "pancake probe" on bucket.



Photo 15: Looking west as soil from impact Area #3 is placed in Super Sack. 12/20/04



Photo 16: Looking at finished remedial excavation for Area #3.



Photo 17: Looking east as Larry Jensen of the USEPA prepares to take a verification sample in Area #3.



Photo 18: Looking north at finished and backfilled remedial Area #3.



Photo 19: Looking west as remedial contractor prepares to remove Ohio Street sidewalk (ROW). 01/05/05



Photo 20: Looking west as remedial contractor removes planter boxes and trees in Ohio Street ROW.



Photo 21: Looking east as Ohio Street ROW is surveyed/screened by radiation technician. 01/05/05



Photo 22: Looking east as contractor prepares to load up concrete debris from Ohio Street ROW. 01/06/05



Photo 23: Placing fabric barrier along future RAC in Phase II area adjacent to McCormick Street. 01/07/05



Photo 24: Placing fabric barrier along future RAC in Phase II area adjacent to McCormick Street. 01/07/05



Photo 25: Screening/survey soils in Ohio Street ROW near Time-Life Building. 01/10/05



Photo 26: Screening/survey soils in the central section of Ohio Street ROW. 01/11/05



Photo 27: Looking west at finished survey/screened Ohio Street ROW area. 01/12/05



Photo 28: Looking west as utility trenches are sawed out in Ohio Street. 01/12/05



Photo 29: Looking down at screened and excavated utility trench adjacent to telephone vault. 01/14/05



Photo 30: Looking down at screened section of utility trench adjacent to second telephone vault. 01/17/05

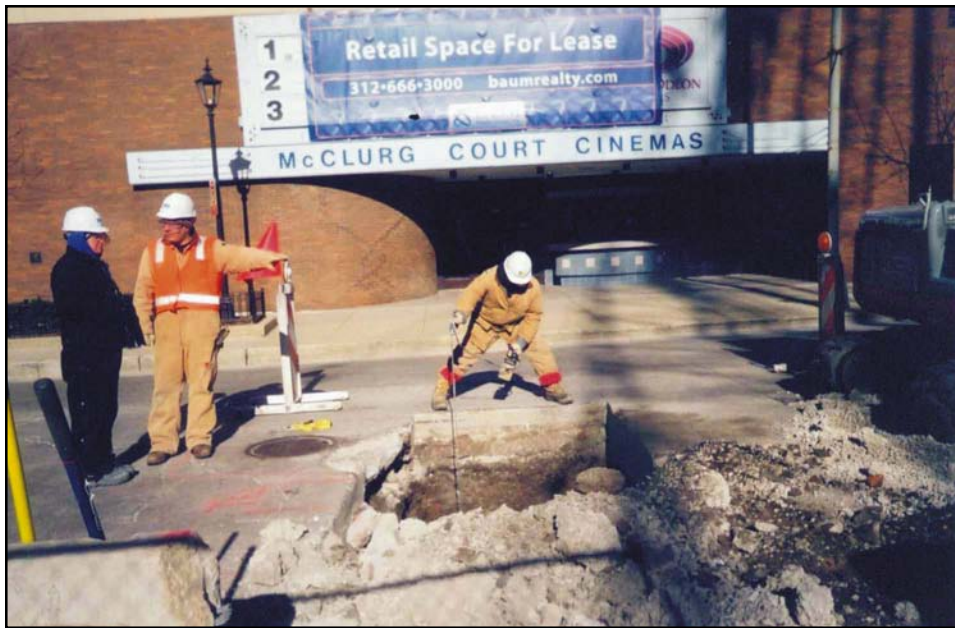


Photo 31: Screening end of sewer trench with long cord probe. 01/18/05



Photo 32: Looking east as water line utility trench is backfilled after surveying. 01/19/05



Photo 33: Loading up broken concrete from second water line trench. 01/21/05



Photo 34: Looking west as fresh concrete is poured into sewer and water utility trenches. 01/21/05



Photo 35: Looking north as City crew replaces lightpole base. 01/24/05



Photo 36: Looking east as water line trench surveyed. 01/25/05



Photo 37: Looking east at water line trench after surveying. 01/25/05



Photo 38: Looking south after surveying sewer trench. 01/26/05



Photo 39: Looking west as surveying/screening is completed on the north end trench for water lines. 01/28/05



Photo 40: Looking west as radiation technician begins survey of Grand Street ROW. 01/27/05



Photo 41: Looking into survey excavation prior to surveying/screening soils in bucket. 01/31/05



Photo 42: Preparing to load out for disposal of non-radioactive soils from soil stockpile. 02/01/05



Photo 43: Surveying bucket of soil from Grand Street ROW. 02/02/05



Photo 44: Looking south as workers hand dig around utilities in Grand Street ROW. 02/03/05



Photo 45: Looking west as excavation removes soil from screening/survey trench. 02/02/05



Photo 46: Looking east at cold patched trenches in Ohio Street. 02/03/05



Photo 47: Looking east at sewer trench cold patch job. 02/03/05

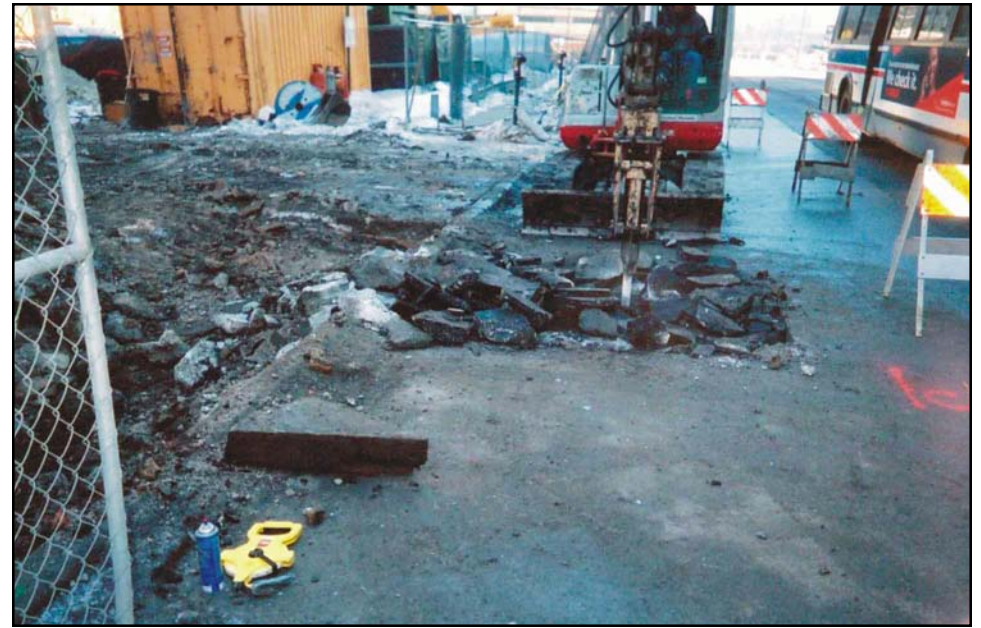


Photo 48: Breakup pavement in proposed sewer trench in Grand Street. 02/03/05



Photo 49: Looking west as radiation technician surveys Grand Street utility trench. 02/03/05



Photo 50: Looking into excavation located in Grand Street ROW as radiation technician surveys excavation. 02/04/05



Photo 51: Looking south as radiation technician surveys Grand Street utility trench. 02/04/05



Photo 52: Looking east after Quickset concrete is installed on the northern half of Grand Street utility trench. 02/04/05



Photo 53: Looking south as old streetcar rails are removed from south end of Grand Street utility trench. 02/07/05



Photo 54: Looking down at south end of Grand Street utility trench as pavers are removed from excavation. 02/07/05



Photo 55: Looking down at excavation in Grand Street utility trench adjacent to ComEd vault (Grand Street). 02/07/05



Photo 56: Looking into Grand Street utility trench as worker probes for utilities. 02/07/05



Photo 57: Looking south at finished Grand Street trench patched with concrete and covered by road plates. 02/07/05



Photo 58: Looking west as survey trench is excavated and surveyed in proposed Eastern Driveway of Grand Street ROW. 02/08/05



Photo 59: Looking on as radiation technician and worker prepare to delineate and excavate impacted soils in Grand Street ROW (Area #4). 02/08/05



Photo 60: Looking west as excavation of impacted soils proceeds. 02/08/05



Photo 61: Looking east at finished remedial excavation (Area #4), in Grand Street ROW. 02/08/05



Photo 62: Looking east as verification sample is collected for Area #4 as USEPA Representative observes. 02/09/05



Photo 63: Looking east as last ROW area is surveyed along Grand Street. 02/10/05



Photo 64: Looking west as workers prepare Grand Street ROW for new sidewalk.



Photo 65: Looking east as concrete workers place and finish concrete sidewalk in Grand Street ROW. 02/10/05



Photo 66: Looking west as workers place and finish Grand Street sidewalk. 02/10/05



Photo 67: Looking east at cured sidewalk and cleaned up area in Grand Street ROW. 02/14/05

Appendix H

ESSI Air Monitoring Results

Personnel air monitoring results

Name	min	l/min	ml	Date	μCi	μCi/ml	μCi*hr/ml
Dumas Gerrier	281	2.00	5.62E+05	12/16/04	< 1.7E-06	< 3.02E-12	< 1.42E-11
Lane DeBartolo	281	2.00	5.62E+05	12/16/04	< 1.7E-06	< 3.02E-12	< 1.42E-11
Dumas Gerrier	120	2.00	2.40E+05	12/20/04	< 1.7E-06	< 7.08E-12	< 1.42E-11
Lane DeBartolo	127	2.00	2.54E+05	12/20/04	2.2E-06	8.66E-12	1.83E-11
Dumas Gerrier	135	2.01	2.71E+05	02/08/05	< 1.2E-06	< 4.42E-12	< 9.95E-12
Lane DeBartolo	134	2.02	2.71E+05	02/08/05	< 1.2E-06	< 4.43E-12	< 9.90E-12

Appendix I

USEPA Area Release Form

**EMERGENCY RESPONSE BRANCH**

REGION 5, CHICAGO, ILLINOIS

FAX NUMBER; 312-353-9176

TO: Steve KornderFROM: Verneta SimonDATE: 12/22/04PHONE NUMBER: (847) 279-2510TOTAL NUMBER OF PAGES (INCLUDING COVER) 2COMMENTS: 345 East Ohio Verification

FORM 223-1
NOTIFICATION OF SUCCESSFUL VERIFICATION SURVEY

Area Identification: A-12

Date of Verification Survey: 12/20/04

Time of Verification Survey 7:00 am/pm

The above-described excavation was surveyed at the time and date indicated above. The survey indicated that all soils have been removed as required by the Site Removal Action Criteria.

Documents pertaining to this survey are attached for review and approval by the U.S. EPA.

Signed:

Dunais F. Gonzalez 12/21/04 Date

DUNAIS F. GONZALEZ (Print Name)

Site Coordinator (Print Title)



STS Consultants, Ltd.
Solutions through Science & Engineering

The attached Verification Survey documents were reviewed by U.S. EPA, Region V on 12/22/04. The results of this survey indicate that the verification criteria as contained in the UAO, have been met.

Authorization is hereby granted to commence backfill and restoration work at this excavation.

Signed:

Veeneta Simon Date 12/22/04

Veeneta Simon (Print Name)

On-Site Coordinator (Print Title)

For U.S. EPA Region V

Appendix J

Radioactive Soils Disposal Manifest and Chain of Custody

Appendix K

Soil Waste Manifests



PLEASE TYPE

(Form designed for use on elite (12-pitch) typewriter.)

EPA Form 8700-22 (Rev. 6-89)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of	Information in the shaded areas is not required by Federal law, but is required by Illinois law.
3. Generator's Name and Mailing Address Golub OMC Ste 2000 625 N. Michigan Ave Chicago IL 60611		Location If Different 345 E. Ohio St. Chicago IL 60611		A. Illinois Manifest Document Number IL 11006112 FEE PAID IF APPLICABLE	
4. 24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS				B. Generator's IL ID Number 0316280021	
5. Transporter 1 Company Name Berkeley / S		6. US EPA ID Number		C. Transporter's ID Number 2917	
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone 630 941 1230	
9. Designated Facility Name and Site Address		10. US EPA ID Number		E. Transporter's ID Number	
				F. Transporter's Phone ()	
				G. Facility's IL ID Number 0978020002	
				H. Facility's Phone 847 731 5110	
11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers No. Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. C-soil		001 cm	15	Y	EPA HW Number
b. C-soil		001 cm	15	Y	EPA HW Number
c. C-soil		001 cm		Y	EPA HW Number
d. C-soil		001 cm		Y	EPA HW Number
J. Additional Description for Materials Listed Above SZL 003 010		K. Handling Codes for Wastes Listed Above In Item #14			
15. Special Handling Instructions and Additional Information					
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.					
Printed /Typed Name X Larry P. Beetsen		Signature X Larry Beetsen		Date Month Day Year 02 20 05	
17. Transporter 1 Acknowledgement of Receipt of Materials		Signature RA Nielsen		Date Month Day Year 08 07 05	
18. Transporter 2 Acknowledgement of Receipt of Materials		Signature		Date Month Day Year	
19. Discrepancy Indication Space					
20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 18.					
Printed /Typed Name X RCTA		Signature		Date Month Day Year	



PLEASE TYPE

(Form designed for use on elite (12-pitch) typewriter.)

EPA Form 8700-22 (Rev. 6-89)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of	Information in the shaded areas is not required by Federal law, but is required by Illinois law.
3. Generator's Name and Mailing Address Golub DMG Ste 2000 625 N. Michigan Ave Chicago IL 60611		Location If Different 345 E. Ohio St. Chicago IL 60611		A. Illinois Manifest Document Number IL11006103 FEE PAID IF APPLICABLE	
4. "24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS"		6. US EPA ID Number		B. Generator's IL ID Number 0316280021	
5. Transporter 1 Company Name Berkeley		8. US EPA ID Number		C. Transporter's ID Number 2917	
7. Transporter 2 Company Name		10. US EPA ID Number		D. Transporter's Phone 630 941 1230	
9. Designated Facility Name and Site Address		12. Containers		E. Transporter's ID Number	
		No. Type		F. Transporter's Phone ()	
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)		13. Total Quantity		G. Facility's IL ID Number 0978020002	
		14. Unit Wt/Vol		H. Facility's Phone 847 731 5110	
a. C-soil		001 cm		I. Waste No. EPA HW Number	
b. C-soil		001 cm		EPA HW Number	
c. C-soil		001 cm		EPA HW Number	
d. C-soil		001 cm		EPA HW Number	
J. Additional Description for Materials Listed Above SZL 003010		K. Handling Codes for Wastes Listed Above In Item #14			
15. Special Handling Instructions and Additional Information					
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable International and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.					
Printed/Typed Name X [Signature]		Signature X [Signature]		Date Month Day Year X 2 02 10	
17. Transporter 1 Acknowledgement of Receipt of Materials		Signature [Signature]		Date Month Day Year	
Printed/Typed Name [Name]		Signature [Signature]		Date Month Day Year	
18. Transporter 2 Acknowledgement of Receipt of Materials		Signature [Signature]		Date Month Day Year	
Printed/Typed Name [Name]		Signature [Signature]		Date Month Day Year	
19. Discrepancy Indication Space					
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.					
Printed/Typed Name [Name]		Signature [Signature]		Date Month Day Year	



PLEASE TYPE

(Form designed for use on cliche (12-pitch) typewriter.)

EPA Form 8700-22 (Rev. 6-89)

Form Approved, OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of	Information in the shaded areas is not required by Federal law, but is required by Illinois law.
3. Generator's Name and Mailing Address Golub omg Ste 2000		Location If Different 345 E. Ohio St Chicago IL 60611		A. Illinois Manifest Document Number IL 11006110 FEE PAID IF APPLICABLE	
4. "24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS"		60611		B. Generator's IL ID Number 0316280021	
5. Transporter 1 Company Name Berkeley		6. US EPA ID Number		C. Transporter's ID Number 2917	
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone 630 941 1230	
9. Designated Facility Name and Site Address		10. US EPA ID Number		E. Transporter's ID Number	
				F. Transporter's Phone ()	
				G. Facility's IL ID Number 0978020002	
				H. Facility's Phone 847 731 5110	
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)			12. Containers No.	13. Total Quantity	14. Unit Wt/Vol
a. C-soil			001 cm		Y
b. C-soil			001 cm		Y
c. C-soil			001 cm		Y
d. C-soil			001 cm		Y
J. Additional Description for Materials Listed Above SZL 003010			K. Handling Codes for Wastes Listed Above In Item #14		
15. Special Handling Instructions and Additional Information					
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.					
Printed/Typed Name Larry J. Watson		Signature [Signature]		Date 02-03-95	
17. Transporter 1 Acknowledgement of Receipt of Materials		Signature [Signature]		Date 02-03-95	
Printed/Typed Name ANDREW J. GALLAGHER		Signature [Signature]		Date 02-03-95	
18. Transporter 2 Acknowledgement of Receipt of Materials		Signature		Date	
Printed/Typed Name		Signature		Date	
19. Discrepancy Indication Space					
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.					
Printed/Typed Name [Signature]		Signature [Signature]		Date 02-03-95	



PLEASE TYPE

(Form designed for use on elite (12-pitch) typewriter.)

EPA Form 8700-22 (Rev. 6-89)

Form Approved OMB No. 2350-0038

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of	Information in the shaded areas is not required by Federal law, but is required by Illinois law.	
3. Generator's Name and Mailing Address 606 US 101 1000 N. 10th St. CHICAGO IL 60611		Location If Different 345 E 10th St CHICAGO IL 60611		A. Illinois Manifest Document Number IL10997935 FEE PAID IF APPLICABLE		
4. *24 HOUR EMERGENCY AND SPIR ASSISTANCE NUMBERS*				B. Generator's IL ID Number 03162812121		
5. Transporter 1 Company Name PACIFIC		6. US EPA ID Number		C. Transporter's ID Number 2917		
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone () 1941-232		
9. Designated Facility Name and Site Address CHRYSLER LANDFILL 2101 N. 10th St.		10. US EPA ID Number		E. Transporter's ID Number		
				F. Transporter's Phone ()		
				G. Facility's IL ID Number 0908020903		
				H. Facility's Phone () 31-50		
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. C-SNL		0.01	CM	10	Y	EPA HW Number
b. C-SNL		0.01	CM	15	Y	EPA HW Number
c. C-SNL		0.01	CM		Y	EPA HW Number
d. C-SNL		0.01	CM		Y	EPA HW Number
J. Additional Description for Materials Listed Above S2L003 010		K. Handling Codes for Wastes Listed Above In Item #14				
15. Special Handling Instructions and Additional Information						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name		Signature		Date Month Day Year		
17. Transporter 1 Acknowledgement of Receipt of Materials		Signature		Date Month Day Year		
Printed/Typed Name		Signature		Date Month Day Year		
18. Transporter 2 Acknowledgement of Receipt of Materials		Signature		Date Month Day Year		
Printed/Typed Name		Signature		Date Month Day Year		
19. Discrepancy Indication Space						
20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.		Signature		Date Month Day Year		
Printed/Typed Name		Signature		Date Month Day Year		



PLEASE TYPE

(Form designed for use on elite (12-pitch) typewriter.)

EPA Form 8700-22 (Rev. 6-89)

Form Approved, OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of	Information in the shaded areas is not required by Federal law, but is required by Illinois law.
3. Generator's Name and Mailing Address Golub OMG Ste 2000 625 N. Michigan Ave Chicago IL 60611		Location If Different 345 E. Ohio St. Chicago IL 60611		A. Illinois Manifest Document Number IL 11006106 FEE PAID IF APPLICABLE	
4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS		6. US EPA ID Number		B. Generator's IL ID Number 0316280021	
5. Transporter 1 Company Name Berkeley 91		8. US EPA ID Number		C. Transporter's ID Number 2917	
7. Transporter 2 Company Name		10. US EPA ID Number		D. Transporter's Phone (630) 941 1230	
9. Designated Facility Name and Site Address		11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)		E. Transporter's ID Number	
				F. Transporter's Phone ()	
				G. Facility's IL ID Number 0978020002	
				H. Facility's Phone 847 731 5110	
		12. Containers		13. Total Quantity	14. Unit Wt/Vol
		No.	Type		
a. c-soil		001	cm	12	Y
b. c-soil		001	cm	15	Y
c. c-soil		001	cm		Y
d. c-soil		001	cm		Y
J. Additional Description for Materials Listed Above SZL 003010		K. Handling Codes for Wastes Listed Above In Item #14			
15. Special Handling Instructions and Additional Information					
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.					
Printed /Typed Name Larry L. Gouillon		Signature [Signature]		Date 02.01.05	
17. Transporter 1 Acknowledgement of Receipt of Materials		Signature [Signature]		Date 02.01.05	
18. Transporter 2 Acknowledgement of Receipt of Materials		Signature		Date	
19. Discrepancy Indication Space					
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.		Date			
Printed /Typed Name [Signature]		Signature [Signature]		Month Day Year 02 01 05	



PLEASE TYPE

(Form designed for use on elite (12-pitch) typewriter.)

EPA Form 8700-22 (Rev. 6-89)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of	Information in the shaded areas is not required by Federal law, but is required by Illinois law.
3. Generator's Name and Mailing Address <i>Golub OMB Ste 2000</i>		Location if Different <i>345 E. Ohio St. Chicago IL 60611</i>		A. Illinois Manifest Document Number <i>IL11006109</i> FEE PAID IF APPLICABLE	
4. "24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS"				B. Generator's IL ID Number <i>031.628.0021</i>	
5. Transporter 1 Company Name <i>Berkeley</i>		6. US EPA ID Number		C. Transporter's ID Number <i>2917</i>	
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone <i>630 941 1230</i>	
9. Designated Facility Name and Site Address		10. US EPA ID Number		E. Transporter's ID Number	
				F. Transporter's Phone ()	
				G. Facility's IL ID Number <i>0978020002</i>	
				H. Facility's Phone <i>847 731 5110</i>	
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers No.	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. <i>C-soil</i>	<i>001 cm</i>	<i>115</i>	<i>Y</i>	EPA HW Number	
b. <i>C-soil</i>	<i>001 cm</i>		<i>Y</i>	EPA HW Number	
c. <i>C-soil</i>	<i>001 cm</i>		<i>Y</i>	EPA HW Number	
d. <i>C-soil</i>	<i>001 cm</i>		<i>Y</i>	EPA HW Number	
J. Additional Description for Materials Listed Above <i>SZL 003 010</i>		K. Handling Codes for Wastes Listed Above in Item #14			
15. Special Handling Instructions and Additional Information					
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable International and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize by waste generation and select the best waste management method that is available to me and that I can afford.					
Printed / Typed Name <i>Charles H. Hain</i>		Signature <i>[Signature]</i>		Date <i>10/20/85</i>	
17. Transporter 1 Acknowledgement of Receipt of Materials		Printed / Typed Name <i>CHARLES HAIN</i>		Signature <i>[Signature]</i>	
18. Transporter 2 Acknowledgement of Receipt of Materials		Printed / Typed Name		Signature	
19. Discrepancy Indication Space					
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.		Printed / Typed Name <i>[Signature]</i>		Signature <i>[Signature]</i>	
				Date <i>10/20/85</i>	



PLEASE TYPE

(Form designed for use on elite (12-pitch) typewriter.)

EPA Form 8700-22 (Rev. 6-89)

Form Approved OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of	Information in the shaded areas is not required by Federal law, but is required by Illinois law.
3. Generator's Name and Mailing Address Golub OMC Ste 2000 625 N. Michigan Ave. Chicago IL 60611		Location If Different 345 E. Ohio St. Chicago IL 60611		A. Illinois Manifest Document Number IL11006105 FEE PAID IF APPLICABLE	
4. "24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS"		6. US EPA ID Number		B. Generator's IL ID Number 0316280021	
5. Transporter 1 Company Name Berkeley HSI		8. US EPA ID Number		C. Transporter's ID Number 2917	
7. Transporter 2 Company Name		10. US EPA ID Number		D. Transporter's Phone 830 941 1230	
9. Designated Facility Name and Site Address		12. Containers		E. Transporter's ID Number	
		No. Type		F. Transporter's Phone ()	
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)		13. Total Quantity		G. Facility's IL ID Number 0978020002	
		14. Unit Wt/Vol		H. Facility's Phone 847 731 5110	
a. C-soil		001 cm		I. Waste No. EPA HW Number	
b. C-soil		001 cm		EPA HW Number	
c. C-soil		001 cm		EPA HW Number	
d. C-soil		001 cm		EPA HW Number	
J. Additional Description for Materials Listed Above SZL 003010		K. Handling Codes for Wastes Listed Above In Item #14			
15. Special Handling Instructions and Additional Information					
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.					
Printed/Typed Name		Signature		Date Month Day Year 2010	
17. Transporter 1 Acknowledgement of Receipt of Materials		Signature		Date Month Day Year 020105	
18. Transporter 2 Acknowledgement of Receipt of Materials		Signature		Date Month Day Year	
19. Discrepancy Indication Space					
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.					
Printed/Typed Name		Signature		Date Month Day Year	



PLEASE TYPE

(Form designed for use on elite (12-pitch) typewriter.)

EPA Form 8700-22 (Rev. 6-89)

Form Approved, OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.		Manifest Document No.		2. Page 1 of		Information in the shaded areas is not required by Federal law, but is required by Illinois law.					
3. Generator's Name and Mailing Address Golub OMG Ste 2000 625 N. Michigan Ave Chicago IL 60611 4. "24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS"						Location If Different 345 E Ohio St Chicago IL 60611							
5. Transporter 1 Company Name Berkeley 345						6. US EPA ID Number							
7. Transporter 2 Company Name						8. US EPA ID Number							
9. Designated Facility Name and Site Address						10. US EPA ID Number							
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)						12. Containers		13. Total Quantity		14. Unit Wt/Vol		15. Waste No.	
a. c-soil						No. Type		Quantity		Unit Wt/Vol		EPA HW Number	
b. c-soil						001 cm		15		Y		EPA HW Number	
c. c-soil						001 cm		15		Y		EPA HW Number	
d. c-soil						001 cm		15		Y		EPA HW Number	
J. Additional Description for Materials Listed Above SZL003010						K. Handling Codes for Wastes Listed Above In Item #14							
15. Special Handling Instructions and Additional Information													
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable International and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.													
Printed/Typed Name						Signature				Date Month Day Year			
17. Transporter 1 Acknowledgement of Receipt of Materials						Signature				Date Month Day Year			
18. Transporter 2 Acknowledgement of Receipt of Materials						Signature				Date Month Day Year			
19. Discrepancy Indication Space													
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.													
Printed/Typed Name						Signature				Date Month Day Year			



PLEASE TYPE

(Form designed for use on elite (12-pitch) typewriter.)

EPA Form 8700-22 (Rev. 6-89)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.		Manifest Document No.		2. Page 1 of 1		Information in the shaded areas is not required by Federal law, but is required by Illinois law.	
3. Generator's Name and Mailing Address Golub OMG Ste 2000 625 N. Michigan Ave Chicago IL 60611				Location If Different 345 E. Ohio St. Chicago IL 60611		A. Illinois Manifest Document Number IL11006107 FEE PAID IF APPLICABLE			
4. "24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS"						B. Generator's IL ID Number 10316280021			
5. Transporter 1 Company Name Berkeley 45				6. US EPA ID Number		C. Transporter's ID Number 2917			
7. Transporter 2 Company Name				8. US EPA ID Number		D. Transporter's Phone 630 941 1330			
9. Designated Facility Name and Site Address				10. US EPA ID Number		E. Transporter's ID Number			
						F. Transporter's Phone ()			
						G. Facility's IL ID Number 0978020002			
						H. Facility's Phone 847 731 5110			
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)						12. Containers		13. Total Quantity	
						No. Type		14. Unit Wt/Vol	
a. C-soil						0.01 cm		Y	
b. C-soil						0.01 cm		Y	
c. C-soil						0.01 cm		Y	
d. C-soil						0.01 cm		Y	
J. Additional Description for Materials Listed Above SZL003010						K. Handling Codes for Wastes Listed Above In Item #14			
15. Special Handling Instructions and Additional Information									
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.									
Printed /Typed Name Larry Benson				Signature [Signature]				Date Month Day Year 2 2 85	
17. Transporter 1 Acknowledgement of Receipt of Materials				Signature [Signature]				Date Month Day Year 2 2 85	
Printed /Typed Name [Name]				Signature [Signature]				Date Month Day Year 2 2 85	
18. Transporter 2 Acknowledgement of Receipt of Materials				Signature [Signature]				Date Month Day Year 2 2 85	
Printed /Typed Name [Name]				Signature [Signature]				Date Month Day Year 2 2 85	
19. Discrepancy Indication Space									
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.									
Printed /Typed Name [Name]				Signature [Signature]				Date Month Day Year 2 2 85	



PLEASE TYPE

(Form designed for use on elite (12-pitch) typewriter.)

EPA Form 8700-22 (Rev. 6-89)

Form Approved OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of	Information in the shaded areas is not required by Federal law, but is required by Illinois law.
3. Generator's Name and Mailing Address Golub omg 625 N. Michigan Chicago IL 60611		Location If Different 345 E. Ohio St. Chicago IL 60611		A. Illinois Manifest Document Number IL11006102 FEE PAID IF APPLICABLE	
4. "24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS"		5. Transporter 1 Company Name Berkely F 64		B. Generator's IL ID Number 0316280021	
6. US EPA ID Number		7. Transporter 2 Company Name		C. Transporter's ID Number 2917	
8. US EPA ID Number		9. Designated Facility Name and Site Address		D. Transporter's Phone 63019411230	
10. US EPA ID Number		11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)		E. Transporter's ID Number	
12. Containers No. Type		13. Total Quantity		14. Unit Wt/Vol	
a. C-soil		001 cm		15. Y	
b. C-soil		001 cm		15. Y	
c. C-soil		001 cm		15. Y	
d. C-soil		001 cm		15. Y	
J. Additional Description for Materials Listed Above SZL003010		K. Handling Codes for Wastes Listed Above In Item #14			
15. Special Handling Instructions and Additional Information					
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.					
Printed /Typed Name		Signature		Date Month Day Year	
17. Transporter 1 Acknowledgement of Receipt of Materials		Signature		Date Month Day Year	
Printed /Typed Name		Signature		Date Month Day Year	
18. Transporter 2 Acknowledgement of Receipt of Materials		Signature		Date Month Day Year	
Printed /Typed Name		Signature		Date Month Day Year	
19. Discrepancy Indication Space					
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.		Signature		Date Month Day Year	
Printed /Typed Name		Signature		Date Month Day Year	



PLEASE TYPE

(Form designed for use on elite (12-pitch) typewriter.)

EPA Form 8700-22 (Rev. 6-89)

Form Approved OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law, but is required by Illinois law.
3. Generator's Name and Mailing Address Golub OMG Ste. 2000 625 N. Michigan Ave Chicago IL 60611		Location If Different 345 E Ohio St. Chicago IL 60611		A. Illinois Manifest Document Number IL 11006104 FEE PAID IF APPLICABLE	
4. "24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS" 60611		6. US EPA ID Number		B. Generator's IL ID Number 03116280021	
5. Transporter 1 Company Name Berkeley 91		8. US EPA ID Number		C. Transporter's ID Number 2917	
7. Transporter 2 Company Name		10. US EPA ID Number		D. Transporter's Phone 630 941 1230	
9. Designated Facility Name and Site Address		12. Containers		E. Transporter's ID Number	
		No. Type		F. Transporter's Phone ()	
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)		13. Total Quantity		G. Facility's IL ID Number 0978020002	
		Unit Wt/Vol		H. Facility's Phone 847 731 5110	
a. C-soil		001 cm		Y	
b. C-soil		001 cm		Y	
c. C-soil		001 cm		Y	
d. C-soil		001 cm		Y	
J. Additional Description for Materials Listed Above SZL 003010		K. Handling Codes for Wastes Listed Above in Item #14			
15. Special Handling Instructions and Additional Information					
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.					
Printed /Typed Name		Signature		Date	
x [Signature]		x [Signature]		x 02 03 05	
17. Transporter 1 Acknowledgement of Receipt of Materials		Signature		Date	
Printed /Typed Name		Signature		Date	
x [Signature]		x [Signature]		x 02 03 05	
18. Transporter 2 Acknowledgement of Receipt of Materials		Signature		Date	
Printed /Typed Name		Signature		Date	
x [Signature]		x [Signature]		x 02 03 05	
19. Discrepancy Indication Space					
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.					
Printed /Typed Name		Signature		Date	
x [Signature]		x [Signature]		x 02 03 05	



PLEASE TYPE

(Form designed for use on elite (12-pitch) typewriter.)

EPA Form 8700-22 (Rev. 6-89)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.		Manifest Document No.		2. Page 1 of		Information in the shaded areas is not required by Federal law, but is required by Illinois law.	
3. Generator's Name and Mailing Address Golub OMG Ste 2000 625 N. Michigan Ave Chicago IL 60611						Location If Different 345 E. Ohio St. Chicago IL 60611		A. Illinois Manifest Document Number IL11006111 FEE PAID IF APPLICABLE	
4. 24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS						B. Generator's IL ID Number 0316280021		C. Transporter's ID Number 2917	
5. Transporter 1 Company Name Berkeley						6. US EPA ID Number		D. Transporter's Phone 630 941 1230	
7. Transporter 2 Company Name						8. US EPA ID Number		E. Transporter's ID Number	
9. Designated Facility Name and Site Address						10. US EPA ID Number		F. Transporter's Phone ()	
								G. Facility's IL ID Number 0978020002	
								H. Facility's Phone 847 731 5110	
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)						12. Containers No. Type		13. Total Quantity	
a. c-soil						0.01 cm		Y	
b. c-soil						0.01 cm		Y	
c. c-soil						0.01 cm		Y	
d. c-soil						0.01 cm		Y	
J. Additional Description for Materials Listed Above SZL 003010						K. Handling Codes for Wastes Listed Above In Item #14			
15. Special Handling Instructions and Additional Information									
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, If I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.									
Printed/Typed Name Larry P. Berkeley						Signature Larry P. Berkeley		Date 02/04/95	
17. Transporter 1 Acknowledgement of Receipt of Materials						Printed/Typed Name Gary Carter		Signature Gary Carter	
18. Transporter 2 Acknowledgement of Receipt of Materials						Printed/Typed Name		Signature	
19. Discrepancy Indication Space									
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.						Printed/Typed Name [Signature]		Signature [Signature]	
								Date Month Day Year	



Onyx Zion Landfill, Inc.
www.onyxwasteservices.com
(847) 731-5110

ACCOUNT NO T1000398-0	INVOICE NO 007602
INVOICE TOTAL	
EBPP WEB PIN # 0370	SITE NUMBER 0000

THERMAL REMEDIATION, INC.
956 S BARTLETT
BARTLETT, IL 60103-6500

DUE DATE 02-28-05

If payment is not received within 30 days of invoice date you may be assessed a service charge of at least \$5 or 1.5% of the unpaid balance.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000 1001 1002 1003 1004 1005 1006 1007 1008 1009 1010 1011 1012 1013 1014 1015 1016 1017 1018 1019 1020 1021 1022 1023 1024 1025 1026 1027 1028 1029 1030 1031 1032 1033 1034 1035 1036 1037 1038 1039 1040 1

PAGE 1 OF 2

[65P140,T063:000238:00],0000:00000,

14-00000.TXT

DATE	CODE	DESCRIPTION	REFERENCE	QTY	AMOUNT
02-01-05	C5	C-Soilex	327635 0 TN	20.93	
02-01-05	C5	C-Soilex	327642 0 TN	18.34	
02-01-05	C5	C-Soilex	327649 0 TN	16.13	
02-01-05	C5	C-Soilex	327655 0 TN	16.62	
02-01-05	C5	C-Soilex	327726 0 TN	17.55	
02-01-05	C5	C-Soilex	327741 0 TN	18.62	
02-01-05	C5	C-Soilex	327745 0 TN	19.74	
02-01-05	C5	C-Soilex	327751 0 TN	15.65	
02-02-05	C5	C-Soilex	327959 0 TN	17.09	
02-02-05	C5	C-Soilex	327991 0 TN	17.33	
02-02-05	C5	C-Soilex	328069 0 TN	20.44	
02-02-05	C5	C-Soilex	328108 0 TN	17.12	
02-02-05	C5	C-Soilex	328184 0 TN	17.89	
02-03-05	C5	C-Soilex	328258 0 TN	20.13	
02-03-05	C5	C-Soilex	328281 0 TN	22.15	
02-03-05	C5	C-Soilex	328285 0 TN	17.97	
02-04-05	C5	C-Soilex	328705 0 TN	19.36	

****Site Total**

----- Material Summary

313.06 TONS

Accounts over 30 days past due may be assessed a service charge.

CURRENT	30 DAYS	60 DAYS	90 DAYS	BALANCE DUE
	\$0.00	\$0.00	\$0.00	

Please return this portion with your payment. Thank you!

Please contact Customer Service if you have a change of address.

THERMAL REMEDIATION, INC.
956 S BARTLETT
BARTLETT, IL 60103-6500

DUE DATE 02-28-05

BILL BY CREDIT CARD. FILL OUT BELOW.		CHECK CARD USING FOR PAYMENT	
NUMBER	AMOUNT PAID	<input type="checkbox"/> VISA <input type="checkbox"/> MASTER CARD <input type="checkbox"/> AMERICAN EXP.	
EXPIRATION DATE	EXP. DATE		
ACCOUNT # T1000398-0	INVOICE # 007602	CHECK #	
BALANCE DUE		AMT. ENCLOSED	

Remit To:

Onyx Waste Services Midwest, Inc. T1
8246 Innovation Way
Chicago IL 60682-0082

[illegible]

מס' תעודת זהות: 00469590 6 תאריך: 02/07/2007



701 Green Bay Road
Zion, IL 60099
Return Service Requested

Onyx Zion Landfill, Inc.
www.onyxwasteservices.com
(847) 731-5110

Date 02-21-05

ACCOUNT NO T1000398-0	INVOICE NO 007640
EBPP WEB PIN # 0370	SITE NUMBER 0000

THERMAL REMEDIATION, INC.
956 S BARTLETT
BARTLETT, IL 60103-6500

DUE DATE 03-14-05

If payment is not received within 30 days of invoice date
you may be assessed a service charge of at least \$5 or 1.5%
of the unpaid balance.



PAGE 1 OF 6

(000000) 431000210000051001:0000:000000:

10-T10022105.TXT

DATE	CODE	DESCRIPTION	REFERENCE	QTY	AMOUNT
02-07-05	C5	C-Soilex	328970 0 TN	16.92	
02-07-05	C5	C-Soilex	328999-0-TN	16.81	
02-07-05	C5	C-Soilex	329058 0 TN	13.66	
02-07-05	C5	C-Soilex	329064 0 TN	15.72	

63.11

Accounts over 30 days past due may be
assessed a service charge.

CURRENT	30 DAYS	60 DAYS	90 DAYS	PAYANCE DUE
	\$0.00	\$0.00	\$0.00	

Please return this portion with your payment. Thank you!

Please contact Customer Service if you have a change of address.

THERMAL REMEDIATION, INC.
956 S BARTLETT
BARTLETT, IL 60103-6500

DUE DATE 03-14-05

CREDIT CARD, FILL OUT BELOW		CHECK CARD USING FOR PAYMENT	
OR	AMOUNT PAID	<input type="checkbox"/> VISA	<input type="checkbox"/> AMERICAN EXP.
	EXP. DATE	<input type="checkbox"/> MASTER CARD	
COUNT # 1000398-0	INVOICE # 007640	CHECK #	
	DUE 5	AMT. ENCLOSED	

Remit To:

Onyx Waste Services Midwest, Inc. T1
8246 Innovation Way
Chicago IL 60682-0082



Appendix L

Concrete Debris Trucking Tickets

Materials Company and Affiliates

MIDWEST DIVISION, VULCAN CONSTRUCTION MATERIALS, LP
747 E 22ND STREET, SUITE 200 • LOMBARD, IL 60148 0149 • TELEPHONE (630) 281-8500

SHIP TO: E ON OHIO TO
MCLURG CT EMPTY
145 E OHIO ST

SOLD TO:

THERMAL REMEDIATION INC.
956 S BARTLETT RD # 250
BARTLETT IL 60103-6500

INVOICE

CUSTOMER NO: 0088389

INVOICE DATE: 01/18/05

INVOICE NO: 445236

INVOICE AMT:

PAYMENT DUE: 02/17/05

To ensure proper credit, please provide a remittance advice. In the absence of remittance advice, payments will be applied to the oldest invoice first. Please return top portion of invoice with payment to:

VULCAN CONSTRUCTION
MATERIALS, LP
75 REMITTANCE DRIVE
SUITE 3155
CHICAGO, IL 60675-3155
INQUIRIES: (630)261-8714

PLEASE DETACH AND RETURN WITH REMITTANCE

TAX EXEMPT LD:

SALES REP: CRAIG REYNOLDS (815-895-6501)

PLANT: PERSHING RD BROKEN CONCRETE

INVOICE NO.	INVOICE DATE	PLANT NO.	CUSTOMER NO	SALES ORDER NO	SALES REP.	PURCHASE ORDER NUMBER	LOADING	FREIGHT
445236	01/18/05	120	0088389	786560	007			DELIVERED
DATE SHIPPED	TICKET	VEHICLE NO.	PROD. CODE	DESCRIPTION	UNIT	QUANTITY	PRICE	AMOUNT
01/06/05	770053	VAN49	030	CONC DUMP-SEMI	LOAD	1.00		
	770077	VAN49				1.00		
	770095	VAN50				1.00		
	770106	VAN49				1.00		
	770116	VAN50				1.00		
	770119	VAN49				1.00		
						6.00*		
01/07/05	770138	VAN43	030	CONC DUMP-SEMI	LOAD	1.00		
	770147	VAN43				1.00		
	770157	VAN43				1.00		
	770163	VAN43				1.00		
	770175	VAN43				1.00		
						5.00*		
TERMS: Net 30 Days from date of invoice.						11.00		
						TOTAL UNITS		
For each month or part thereof that amounts due hereunder are not paid when due, there will be added to such amount a late charge computed at the rate of 1 1/2% per month or at the maximum rate permitted under applicable law or at such lesser rate as may be established by Valstar from time to time. Customer shall pay all cost of collection including a reasonable attorney's fee for services rendered by and/or otherwise in collecting past due invoices.								
							TOTAL AMOUNT	
								Page 1 of 1



Materials Company and Affiliates

MIDWEST DIVISION, VULCAN CONSTRUCTION MATERIALS, LP
747 E 22nd STREET, SUITE 200 - LOMBARD, IL 60148 0149 - TELEPHONE (630) 261-8600

SHIP TO:

345 E OHIO ST
345 E OHIO ST

SOLD TO:

THERMAL REMEDIATION INC.
956 S BARTLETT RD # 250
BARTLETT IL 60103-6500

INVOICE

CUSTOMER NO: 0088389

INVOICE DATE: 01/31/05

INVOICE NO: 447938

INVOICE AMT:

PAYMENT DUE: 02/28/05

To ensure proper credit, please provide a remittance advice. In the absence of remittance advice, payments will be applied to the oldest invoice first. Please return top portion of invoice with payment to:

VULCAN CONSTRUCTION
MATERIALS, LP
75 REMITTANCE DRIVE
SUITE 3155
CHICAGO, IL 60675-3155
INQUIRIES: (630) 261-8714

PLEASE DETACH AND RETURN WITH REMITTANCE

TAX EXEMPT I.D.:

SALES REP: CRAIG REYNOLDS (815-895-6501)

PLANT: PERSHING RD BROKEN CONCRETE

INVOICE NO.	INVOICE DATE	PLANT NO.	CUSTOMER NO.	SALES ORDER NO.	SALES REP.	PURCHASE ORDER NUMBER	TADING	FREIGHT
447938	01/31/05	120	0088389	786560	007			PICKUP
DATE SHIPPED	TICKET	VEHICLE NO.	PROD. CODE	DESCRIPTION	UNIT	QUANTITY	PRICE	AMOUNT
01/31/05	771755 49		030	CONC DUMP-SEMI	LOAD	1.00	3.00	
	771775 49					1.00		
	771798 49					1.00		
						3.00*		
TERMS: Net 30 Days from date of invoice.						3.00		
						TOTAL UNITS		
For each month or part thereof that accounts due hereunder are not paid when due, there will be added to such amount a late charge computed at the rate of 1 1/2% per month or of the maximum rate permitted under applicable law or at such lower rate as may be determined by Vulcan from time to time. Customer shall pay all cost of collection including a reasonable attorney's fee for services rendered by mail or otherwise in collecting past due invoices.								
								TOTAL AMOUNT
								Page 1 of 1



Materials Company and Affiliates

MIDWEST DIVISION, VULCAN CONSTRUCTION MATERIALS, LP
747 E 22nd STREET, SUITE 200 - LOMBARD, IL 60148 0148 - TELEPHONE (630) 261-8600

INVOICE

CUSTOMER NO: 0088389

INVOICE DATE: 02/08/05

INVOICE NO: 450378

INVOICE AMT:

PAYMENT DUE: 03/10/05

SHIP TO:

345 E OHIO ST
345 E OHIO ST

SOLD TO:

THERMAL REMEDIATION INC.
956 S BARTLETT RD # 250
BARTLETT IL 60103-6500

To ensure proper credit, please provide a remittance advice, in the absence of remittance advice, payments will be applied to the oldest invoice first. Please return top portion of invoice with payment to:

VULCAN CONSTRUCTION
MATERIALS, LP
75 REMITTANCE DRIVE
SUITE 3155
CHICAGO, IL 60675-3155
INQUIRIES: (630) 261-8714

PLEASE DETACH AND RETURN WITH REMITTANCE

TAX EXEMPT I.D.:

SALES REP: CRAIG REYNOLDS (815-895-6501)

PLANT: PERSHING RD BROOKER CONCRETE

INVOICE NO.	INVOICE DATE	PLANT NO.	CUSTOMER NO.	SALES ORDER NO.	SALES REP.	PURCHASE ORDER NUMBER	LADING	FREIGHT
450378	02/08/05	120	0088389	786560	007			PICKUP
DATE SHIPPED	TICKET	VEHICLE NO.	PROD. CODE	DESCRIPTION	UNIT	QUANTITY	PRICE	AMOUNT
02/03/05	771980 42		030	CONC DUMP-SEMI	LOAD	1.00		
	772000 42					1.00		
	772015 42					1.00		
	772037 42					1.00		
						4.00*		
TERMS: Net 30 Days from date of invoice.						4.00	TOTAL AMOUNT	
						TOTAL UNITS		
For each month or part thereof that exceeds due hereunder and not paid when due, there will be added to each account a late charge computed at the rate of 1 1/2% per month or at the maximum rate permitted under applicable law or if such lesser rate as may be established by Vulcan from time to time. Customer shall pay all cost of collection including a reasonable attorney's fee for services rendered by suit or otherwise in collecting past due invoices.								Page 1 of 1

VULCAN MATERIALS COMPANY AND AFFILIATES
MIDWEST DIVISION, VULCAN CONSTRUCTION MATERIALS, LP • 747 E. 22nd STREET, SUITE 200 • LOMBARD, IL 60148 • TELEPHONE (630) 261-8600
RETAIN THIS PORTION FOR YOUR RECORDS



Materials Company and Affiliates

MIDWEST DIVISION, VULCAN CONSTRUCTION MATERIALS, LP
747 E 22nd STREET, SUITE 200 • LOMBARD, IL 60148 0149 • TELEPHONE (630) 281-8500

INVOICE

CUSTOMER NO: 0088389

INVOICE DATE: 12/21/04

INVOICE NO: 440009

INVOICE AMT:

PAYMENT DUE: 01/20/05

SHIP TO:
345 E OHIO ST
CHICAGO
345 E OHIO ST

SOLD TO:

THERMAL REMEDIATION INC.
956 S BARTLETT RD # 250
BARTLETT IL 60103-6500

To ensure proper credit, please provide a remittance advice. In the absence of remittance advice, payments will be applied to the oldest invoice first. Please return top portion of invoice with payment to:

VULCAN CONSTRUCTION
MATERIALS, LP
75 REMITTANCE DRIVE
SUITE 3155
CHICAGO, IL 60675-3155
INQUIRIES: (630) 261-8714

PLEASE DETACH AND RETURN WITH REMITTANCE

TAX EXEMPT I.D.:

SALES REP: CRAIG REYNOLDS (815-895-6501)

PLANT: MCCOOK

INVOICE NO.	INVOICE DATE	PLANT NO.	CUSTOMER NO.	SALES ORDER NO.	SALES REP.	PURCHASE ORDER NUMBER	LADING	FREIGHT
440009	12/21/04	378	0088389	786560	007			DELIVERED
DATE SHIPPED	TICKET	VEHICLE NO.	PROD. CODE	DESCRIPTION	UNIT	QUANTITY	PRICE	AMOUNT
12/15/04	782292 MAR62		549	CERT CA-6 STONE	TONS	23.12		
	782360 H24					21.88		
	782509 H42					22.46		
	782602 H24					21.23		
	782689 MAR62					22.49		
	782899 H24					22.01		
	782958 MAR62					22.52		
	783069 H24					22.14		
						177.85*		
12/16/04	783661 ME216		549	CERT CA-6 STONE	TONS	20.94		
	783682 H60					22.58		
	783691 H38					23.85		
	783698 MMT04					22.17		
	783821 BREX3					20.67		
	783915 ME216					20.73		
	783935 H38					23.43		
	783940 H60					21.07		
	783990 BREX3					20.37		
	784045 MMT04					22.52		
	784116 ME216					21.03		
	784148 H38					23.44		
	784171 BREX3					20.41		
	784185 MAR48					23.33		
	784189 MAR31					21.35		
	784202 H60					22.07		
	784241 MMT04					23.01		
	784303 ME216					19.83		
	784311 BREX3					20.69		
	784312 H38					22.21		
						435.70*		
			6.2504	IL STATE-TAX =				
			1.5008	016 CNTY--TAX =				
							TOTAL TAX	...
TERMS: Net 30 Days from date of invoice.						613.55		
						TOTAL UNITS		
For each month or part thereof that amounts due hereunder are not paid when due, there will be added to such amount a late charge computed at the rate of 1 1/2% per month or at the maximum rate permitted under applicable law or at such lesser rate as may be established by Vulcan from time to time. Customer shall pay all cost of collection including a reasonable attorney's fee for services rendered by him or otherwise in collecting past due invoices.								
							TOTAL AMOUNT	
								Page 1 of 1

Vulcan

Materials Company and Affiliates

MIDWEST DIVISION, VULCAN CONSTRUCTION MATERIALS, LP

747 E 22nd STREET, SUITE 200 - LOMBARD, IL 60148 0149 - TELEPHONE (630) 261-8600

SHIP TO:
345 E OHIO ST
CHICAGO
345 E OHIO ST

SOLD TO:

THERMAL REMEDIATION INC.
956 S BARTLETT RD # 250
BARTLETT IL 60103-6500

INVOICE

CUSTOMER NO: 0088389

INVOICE DATE: 01/18/05

INVOICE NO: 445237

INVOICE AMT: .

PAYMENT DUE: 02/17/05

To ensure proper credit, please provide a remittance advice. In the absence of remittance advice, payments will be applied to the oldest invoice first. Please return top portion of invoice with payment to:

VULCAN CONSTRUCTION
MATERIALS, LP
75 REMITTANCE DRIVE
SUITE 3155
CHICAGO, IL 60675-3155
INQUIRIES: (630) 261-8714

PLEASE DETACH AND RETURN WITH REMITTANCE

TAX EXEMPT LD.:

SALES REP: CRAIG REYNOLDS (815-895-6501)

PLANT: MCCOOK

INVOICE NO.	INVOICE DATE	PLANT NO.	CUSTOMER NO.	SALES ORDER NO.	SALES REP.	PURCHASE ORDER NUMBER	LADING	FREIGHT
445237	01/18/05	378	0088389	786560	007			DELIVERED
DATE SHIPPED	TICKET	VEHICLE NO.	PROD. CODE	DESCRIPTION	UNIT	QUANTITY	PRICE	AMOUNT
01/14/05	795740 H101		549	CERT CA-6 STONE	TONS	22.56		
	795804 H101					22.67		
						45.23*		
01/17/05	795932 H59		549	CERT CL-6 STONE	TONS	20.52		
	795936 H70					22.00		
	795992 H59					20.57		
	796014 H70					22.02		
	796031 H59					21.28		
	796044 H70					22.68		
	796070 H59					19.88		
						148.93*		
			6.250%	IL STATE-TAX =				
			1.500%	016 CNTY--TAX =				
							TOTAL TAX	...
TERMS: Net 30 Days from date of invoice.						194.18		
						TOTAL UNITS		
For each month or part thereof that amounts due hereunder are not paid when due, there will be added to such amount a late charge computed at the rate of 1 1/2% per month or at the maximum rate permitted under applicable law or at such lesser rate as may be established by Vulcan from time to time. Customer shall pay all costs of collection including a reasonable attorney's fee for services rendered by us or otherwise in collecting past due balances.								
							TOTAL AMOUNT	
								Page 1 of 1

VULCAN MATERIALS COMPANY AND AFFILIATES
MIDWEST DIVISION, VULCAN CONSTRUCTION MATERIALS, LP - 747 E. 22nd STREET, SUITE 200 - LOMBARD, IL 60148 - TELEPHONE (630) 261-8600
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Materials Company and Affiliates

MIDWEST DIVISION, VULCAN CONSTRUCTION MATERIALS, LP

747 E 22nd STREET, SUITE 200 - LOMBARD, IL 60148 0149 - TELEPHONE (630) 261-8600

SHIP TO:
345 E OHIO ST
CHICAGO
345 E OHIO ST

SOLD TO:

THERMAL REMEDIATION INC.
956 S BARTLETT RD # 250
BARTLETT IL 60103-6500

INVOICE

CUSTOMER NO: 0088389

INVOICE DATE: 01/25/05

INVOICE NO: 446919

INVOICE AMT:

PAYMENT DUE: 02/24/05

To ensure proper credit, please provide a remittance advice. In the absence of remittance advice, payments will be applied to the oldest invoice first. Please return top portion of invoice with payment to:

VULCAN CONSTRUCTION
MATERIALS, LP
75 REMITTANCE DRIVE
SUITE 3155
CHICAGO, IL 60675-3155
INQUIRIES: (630) 261-8714

PLEASE DETACH AND RETURN WITH REMITTANCE

TAX EXEMPT I.D.:

SALES REP: CRAIG REYNOLDS (815-895-6501)

PLANT: MCCOOK

INVOICE NO.	INVOICE DATE	PLANT NO.	CUSTOMER NO.	SALES ORDER NO.	SALES REP.	PURCHASE ORDER NUMBER	LADING	FREIGHT
446919	01/25/05	378	0088389	786560	007			DELIVERED
DATE SHIPPED	TICKET	VEHICLE NO.	PROD. CODE	DESCRIPTION	UNIT	QUANTITY	PRICE	AMOUNT
01/12/05	794567 B57		549	CERT CR-6 STONE	TONS	22.25		
	794569 B25					22.66		
	794710 B25					22.59		
	794719 B57					22.94		
	794795 B25					22.22		
	794815 B57					22.39		
	794910 B25					22.42		
	794913 B57					22.85		
	795019 B25					22.84		
	795021 B57					22.68		
						225.84*		
01/21/05	797412 JRT1		549	CERT CR-6 STONE	TONS	21.56		
	797548 JRT1					21.79		
						43.35*		
			6.250%	IL STATE-TAX =				
			1.500%	016 CNTY--TAX =				
							TOTAL TAX	
TERMS: Net 30 Days from date of invoice.						269.19		
						TOTAL UNITS		
For each month or part thereof that accounts due hereunder are not paid when due, there will be added to each account a late charge computed at the rate of 1 1/2% per month or at the maximum rate permitted under applicable law or at such lower rate as may be established by Vulcan from time to time. Customer shall pay all cost of collection including a reasonable attorney's fee for services rendered by and/or otherwise in collecting past due invoices.								
							TOTAL AMOUNT	
								Page 1 of 1

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MIDWEST DIVISION, VULCAN CONSTRUCTION MATERIALS, LP
747 E 22nd STREET, SUITE 200 • LOMBARD, IL 60148 0149 • TELEPHONE (630) 261-8800

INVOICE

CUSTOMER NO: 0088389

INVOICE DATE: 01/18/05

INVOICE NO: 445238

INVOICE AMT:

PAYMENT DUE: 02/17/05

SHP TO: E ON ORIO TO
MELURG CT EMPTY
345 E ORIO ST

SOLD TO:

THERMAL REMEDIATION INC.
956 S BARTLETT RD # 250
BARTLETT IL 60103-6500

To ensure proper credit, please provide a remittance advice. In the absence of remittance advice, payments will be applied to the oldest invoice first. Please return top portion of invoice with payment to:

VULCAN CONSTRUCTION
MATERIALS, LP
75 REMITTANCE DRIVE
SUITE 3155
CHICAGO, IL 60675-3155
INQUIRIES: (630) 261-8714

PLEASE DETACH AND RETURN WITH REMITTANCE

TAX EXEMPT I.D.:

SALES REP: CRAIG REYNOLDS (815-895-6501)

PLANT: PERSHING RD RECYCLED MATERIAL

INVOICE NO.	INVOICE DATE	PLANT NO.	CUSTOMER NO.	SALES ORDER NO.	SALES REP.	PURCHASE ORDER NUMBER	LADING	FREIGHT
445238	01/18/05	520	0088389	786560	007			DELIVERED
DATE SHIPPED	TICKET	VEHICLE NO.	PROD. CODE	DESCRIPTION	UNIT	QUANTITY	PRICE	AMOUNT
01/06/05	770007 VAN49		548	CA-6 (R) CAP/TRF	TONS	19.44		
	770027 VAN49					19.69		
	770055 VAN49					19.87		
	770068 VAN50					20.06		
	770084 VAN49					19.86		
	770102 VAN50					19.86		
	770105 VAN49					19.87		
						138.65*		
			6.250%	IL STATE-TAX =				
			1.500%	016 CTRY-TAX =				
			1.000%	LOCAL-TAX =				
							TOTAL TAX	---
TERMS: Net 30 Days from date of invoice.						138.65		
						TOTAL UNITS		
For each month or part thereof that amounts due hereunder are not paid when due, there will be added to such amount a late charge computed at the rate of 1 1/2% per month or at the maximum rate permitted under applicable law or at such lesser rate as may be established by Vulcan from time to time. Customer shall pay all cost of collection including a reasonable attorney's fee for services rendered by suit or otherwise in collecting past due invoices.								
							TOTAL AMOUNT	
							Page 1 of 1	



Materials Company and Affiliates

MIDWEST DIVISION, VULCAN CONSTRUCTION MATERIALS, LP
747 E 22nd STREET, SUITE 200 - LOMBARD, IL 60148 0149 - TELEPHONE (830) 261-8600

INVOICE

CUSTOMER NO: 0088389

INVOICE DATE: 01/31/05

INVOICE NO: 447939

INVOICE AMT:

PAYMENT DUE: 02/28/05

SHIP TO:
345 E OHIO ST
CHICAGO
345 E OHIO ST

SOLD TO:

THERMAL REMEDIATION INC.
956 S BARTLETT RD # 250
BARTLETT IL 60103-6500

To ensure proper credit, please provide a remittance advice. In the absence of remittance advice, payments will be applied to the oldest invoice first. Please return top portion of invoice with payment to:

VULCAN CONSTRUCTION
MATERIALS, LP
75 REMITTANCE DRIVE
SUITE 3155
CHICAGO, IL 60675-3155
INQUIRIES: (630) 261-8714

PLEASE DETACH AND RETURN WITH REMITTANCE

TAX EXEMPT I.D.:

SALES REP: CRAIG REYNOLDS (815-895-6501)

PLANT: MCCOOK

INVOICE NO.	INVOICE DATE	PLANT NO.	CUSTOMER NO.	SALES ORDER NO.	SALES REP.	PURCHASE ORDER NUMBER	LOADING	FREIGHT
447939	01/31/05	378	0088389	786560	007			DELIVERED
DATE SHIPPED	TICKET	VEHICLE NO.	PROD. CODE	DESCRIPTION	UNIT	QUANTITY	PRICE	AMOUNT
01/25/05	798302 MAR32		549	CERT CA-6 STONE	TONS	21.42		
	798449 MAR32					21.04		
	798505 MAR32					21.54		
	798549 MAR32					20.92		
						84.92*		
01/28/05	799549 H122		549	CERT CA-6 STONE	TONS	21.97		
	799639 H122					21.82		
	799693 H122					21.23		
	799745 H122					22.02		
						87.04*		
			6.250%	IL STATE-TAX =				
			1.500%	016 CRTX-TAX =				
							TOTAL TAX	...
TERMS: Net 30 Days from date of invoice.						171.96		
						TOTAL UNITS		
For each month or part thereof that amounts due hereunder are not paid when due, there will be added to such amount a late charge computed at the rate of 1 1/2% per month or at the maximum rate permitted under applicable law or at such lesser rate as may be established by Vulcan from time to time. Customer shall pay all cost of collection including a reasonable attorney's fee for services rendered by mail or otherwise in collecting past due invoices.								
							TOTAL AMOUNT	
								Page 1 of 1

VULCAN MATERIALS COMPANY AND AFFILIATES
MIDWEST DIVISION, VULCAN CONSTRUCTION MATERIALS, LP - 747 E. 22nd STREET, SUITE 200 - LOMBARD, IL 60148 - TELEPHONE (830) 261-8600
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MIDWEST DIVISION, VULCAN CONSTRUCTION MATERIALS, LP

747 E 22nd STREET, SUITE 200 • LOMBARD, IL 60148 0149 • TELEPHONE (830) 261-8600

INVOICE

CUSTOMER NO: 0088389

INVOICE DATE: 02/08/05

INVOICE NO: 450379

INVOICE AMT:

PAYMENT DUE: 03/10/05

SHIP TO: 345 E ORIO ST
CHICAGO
345 E ORIO ST

SOLD TO:

THERMAL REMEDIATION INC.
956 S BARTLETT RD # 250
BARTLETT IL 60103-6500

To ensure proper credit, please provide a remittance advice. In the absence of remittance advice, payments will be applied to the oldest invoice first. Please return top portion of invoice with payment to:

VULCAN CONSTRUCTION
MATERIALS, LP
75 REMITTANCE DRIVE
SUITE 3155
CHICAGO, IL 60675-3155
INQUIRIES: (630) 261-8714

PLEASE DETACH AND RETURN WITH REMITTANCE

TAX EXEMPT ID.:

SALES REP: CRAIG REYNOLDS (815-895-6501)

PLANT: MCCOOK

INVOICE NO.	INVOICE DATE	PLANT NO.	CUSTOMER NO.	SALES ORDER NO.	SALES REP.	PURCHASE ORDER NUMBER	LADING	FREIGHT
450379	02/08/05	378	0088389	786560	007			DELIVERED
DATE SHIPPED	TICKET	VEHICLE NO.	PROD. CODE	DESCRIPTION	UNIT	QUANTITY	PRICE	AMOUNT
02/04/05	802118 B505 802140 B70 802180 MAR113		549	CERT CA-6 STONE	TONS	21.04 22.81 22.03 65.88*		
			6.250%	IL STATE-TAX =	3%			
			1.500%	016 CNTY--TAX =				
							TOTAL	...
TERMS: Net 30 Days from date of invoice.						65.88		
						TOTAL UNITS		
For each month or part thereof that accounts due hereunder are not paid when due, there will be added to such amount a late charge computed at the rate of 1 1/2% per annum or at the maximum rate permitted under applicable law or at such lower rate as may be established by Vulcan from time to time. Customer shall pay all cost of collection including a reasonable attorney's fee for services rendered by suit or otherwise in collecting past due invoices.								
							TOTAL AMOUNT	
							Page 1 of 1	



Materials Company and Affiliates

MIDWEST DIVISION, VULCAN CONSTRUCTION MATERIALS, LP
747 E 22nd STREET, SUITE 200 • LOMBARD, IL 60148 0140 • TELEPHONE (830) 261-8600

INVOICE

CUSTOMER NO: 0080389

INVOICE DATE: 02/08/05

INVOICE NO: 450380

INVOICE AMT:

PAYMENT DUE: 03/10/05

SHIP TO:

345 E OHIO ST
345 E OHIO ST

SOLD TO:

THERMAL REMEDIATION INC.
956 S BARTLETT RD # 250
BARTLETT IL 60103-6500

To ensure proper credit, please provide a remittance advice. In the absence of remittance advice, payments will be applied to the oldest invoice first. Please return top portion of invoice with payment to:

VULCAN CONSTRUCTION
MATERIALS, LP
75 REMITTANCE DRIVE
SUITE 3155
CHICAGO, IL 60675-3155
INQUIRIES: (630) 261-8714

PLEASE DETACH AND RETURN WITH REMITTANCE

TAX EXEMPT I.D.:

SALES REP: CRAIG REYNOLDS (815-895-6501)

PLANT: PERSHING RD RECYCLED MATERIAL

INVOICE NO.	INVOICE DATE	PLANT NO.	CUSTOMER NO.	SALES ORDER NO.	SALES REP.	PURCHASE ORDER NUMBER	LOADING	FREIGHT
450380	02/08/05	520	0080389	786560	007			
DATE SHIPPED	TICKET	VEHICLE NO.	PROD. CODE	DESCRIPTION	UNIT	QUANTITY	PRICE	DELIVERED
02/03/05	771981 VAN42		548	CA-6 (R) CAP/TRF	TONS	20.65		
	772025 VAN42					20.75		
						41.40*		
			6.250%	IL STATE-TAX =		20.65		
			1.500%	016 CNTY--TAX =		4.96		
			1.000%	LOCAL-TAX =		3.30		
							TOTAL TAX	...
TERMS: Net 30 Days from date of invoice.						41.40		
						TOTAL UNITS		
For each month or part thereof that amounts due hereunder are not paid when due, there will be added to such amount a late charge computed at the rate of 1 1/2% per month or at the maximum rate permitted under applicable law or at such lesser rate as may be established by Vulcan from time to time. Customer shall pay all cost of collection including a reasonable attorney's fee for services rendered by suit or otherwise in collecting past due invoices.								
							TOTAL AMOUNT	
								Page 1 of 1

VULCAN MATERIALS COMPANY AND AFFILIATES
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Materials Company and Affiliates

MIDWEST DIVISION, VULCAN CONSTRUCTION MATERIALS, LP
747 E 22nd STREET, SUITE 200 - LOMBARD, IL 60148 0149 - TELEPHONE (830) 261-8600

INVOICE

CUSTOMER NO: 0088389

INVOICE DATE: 02/15/05

INVOICE NO: 451999

INVOICE AMT:

PAYMENT DUE: 03/17/05

SHIP TO:
345 E ORO ST
CHICAGO
345 E ORO ST

SOLD TO:

THERMAL REMEDIATION INC.
956 S BARTLETT RD # 250
BARTLETT IL 60103-6500

To ensure proper credit, please provide a remittance advice. In the absence of remittance advice, payments will be applied to the oldest invoice first. Please return top portion of invoice with payment to:

VULCAN CONSTRUCTION
MATERIALS, LP
75 REMITTANCE DRIVE
SUITE 3155
CHICAGO, IL 60675-3155
INQUIRIES: (630) 261-8714

PLEASE DETACH AND RETURN WITH REMITTANCE

TAX EXEMPT I.D.:

SALES REP: CRAIG REYNOLDS (815-895-6501)

PLANT: MCCOOK

INVOICE NO.	INVOICE DATE	PLANT NO.	CUSTOMER NO.	SALES ORDER NO.	SALES REP.	PURCHASE ORDER NUMBER	LADING	FREIGHT
451999	02/15/05	378	0088389	786560	007			DELIVERED
DATE SHIPPED	TICKET	VEHICLE NO.	PROD. CODE	DESCRIPTION	UNIT	QUANTITY	PRICE	AMOUNT
02/08/05	803094	MAR64	549	CERT CA-6 STONE	TONS	21.53		
						21.53*		
02/09/05	803513	H122	549	CERT CA-6 STONE	TONS	21.78		
	803514	H10				24.00		
	803582	H10				23.49		
	803585	H122				21.97		
	803660	H122				22.45		
	803663	H10				23.16		
	803728	H10				24.16		
	803729	H122				22.61		
	803796	H122				22.61		
	803797	H10				24.08		
						230.31*		
			6.2500	IL STATE-TAX =				
			1.5000	016 CITY-TAX =				
TERMS: Net 30 Days from date of invoice.						251.84		
						TOTAL UNITS		
For each month or part thereof that amounts due hereunder are not paid when due, there will be added to such amount a late charge computed at the rate of 1 1/2% per month or at the maximum rate specified under applicable law or at such lesser rate as may be established by Vulcan from time to time. Customer shall pay all cost of collection including a reasonable attorney's fee for services rendered by suit or otherwise in collecting past due amounts.								
							TOTAL AMOUNT	
							Page 1 of 1	

VULCAN MATERIALS COMPANY AND AFFILIATES
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From: Jan 01, 2005 To: Feb 24, 2005
Specified Contract: 003010

Facility: All Facilities

SUMMARY REPORT

Ticket Type: All Ticket Types

Contract	Material	Inbound Weight	Inbound Volume	Outbound Weight	Outbound Volume	Minimum Quantity	Maximum Quantity
003010	C-Sallex	376.17 TN	315.00 YD	0.00 TN	0.00 YD	0.00 TN	0.00 TN
Contract Total		376.17 TN	315.00 YD	0.00 TN	0.00 YD		

Copy

630-830-9324